

JAMES BANKS'

(Successor to CHAR. D. YOUNG & CO.)

Illustrated and Descriptive Catalogue

OF

**IRON MANUFACTURES,
MACHINERY, &c.,**

In Connection with the Improvement of Landed Property at Home and Abroad,

INCLUDING

**STEAM ENGINES, IRON HOUSES,
ROOFING, &c.**

AGRICULTURAL IMPLEMENTS OF ALL KINDS,

BY THE MOST EMINENT MANUFACTURERS.

OFFICE:

No. 1, Castle Buildings, Derby Square.

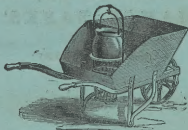
IMPLEMENT DEPOT:

No. 30 & 32, Great Homer Street, opposite the Hay Market.

LIVERPOOL:

MDCCCLIX.

WROUGHT-IRON HEATING BARROW.



JAMES BANKS begs to direct the attention of Landed Proprietors to his WROUGHT IRON HEATING BARROW. It is constructed on the principle of an ordinary barrow, the body being divided into two compartments, the first compartment for carrying tools, fuel, &c., and the back one containing the fire grate with pot suspended over it. For coating existing lines of fencing with the Varnish or paint, the use of an article of this kind must be obvious, but when gas or coal tar is used, which should always be applied hot, it becomes indispensable. It may be wheeled by a lad easily, and will be found very useful for conveying tools and materials to repair existing fences, in heating pitch for the purpose of marking sheep, and for many other purposes on estates, besides those enumerated.

PRICE £3 3s.

PATENT BLACK VARNISH,

FOR PRESERVING IRON FENCING, WOOD & STONE WORK.

A cheap and excellent substitute for Paint.

Is used upon all descriptions of work, such as iron or wire fencing, iron roofs, wood fencing, farm buildings, machinery, &c. Its advantages over oil paints may be enumerated thus:—

- 1.—That it requires no mixing, but is always ready for use, and may be applied cold.
- 2.—That skilled labour is not necessary to apply it, an ordinary agricultural labourer, furnished with a common paint brush being quite equal to it.
- 3.—That it will keep good for any length of time, and dry in fine weather in ten minutes.
- 4.—THAT ITS COST IS LESS THAN ONE-THIRD OF EVEN AN ORDINARY QUALITY OF OIL PAINT.

It is sold in Casks of 10 to 30 gallons each, at 2s. per gallon.

JAMES BANKS'

(SUCCESSOR TO CHARLES D. YOUNG AND CO.)

1859.

Illustrated & Descriptive Catalogue

OF

**IRON MANUFACTURES,
MACHINERY, &c.,**

IN CONNECTION WITH THE IMPROVEMENT OF LANDED PROPERTY AT HOME
AND ABROAD, INCLUDING

**STEAM ENGINES, IRON HOUSES,
ROOFING, &c.,**

AND

Agricultural Implements of all kinds,

BY THE MOST EMINENT MANUFACTURERS.



LIVERPOOL:

OFFICE—No. 1, Castle Buildings, Derby Square.

IMPLEMENT DEPOT—Nos. 20 & 32, Great Homer Street,
Opposite the Hay Market.

ADDRESS.

In submitting the present Catalogue of Manufactures, in connection with the Improvement of Landed Property, &c., to the attention of Proprietors, Agents, Agriculturists, and the landed interests generally, the Subscriber takes this opportunity of intimating that the business carried on under his management, in Liverpool, for Messrs. Charles D. Young and Company, up to December, 1857, was then made over to him, and that it will be continued in all the departments on his own account; and he is now prepared to execute orders for Home Consumption and Exportation on the lowest terms compatible with the state of the Iron Market for the time being.

While tendering his best thanks for the liberal patronage hitherto accorded him, he hopes to merit a continuance of it, and by prompt and minute attention to all orders to receive the support of the public; and having made arrangements with the most eminent Manufacturers of Implements for supplying these at the maker's prices, delivered here, he has, for the convenience of Agriculturists, Merchants, and others, opened a Depot for the same at No. 30 and 32, GREAT HOMER STREET, (opposite the Hay Market), where he will always have a Stock of

Corn Crushers.
Prize Chaff Machines.
Gorse Machines.
Bean Mills.
Malt Mills.
Linseed & Oat Mills.
Oilcake Bruisers.
Root Washers.
Sheep Racks.
Turnip Cutters.
Turnip Pulpers.
Turnip Slicers.
Cheese Presses.

Churns.
Lawn Mowing Machines.
Garden Seats.
Garden Rollers.
Vases and Fountains.
Rakes for Hay and Stubble.
Seed Rollers.
Clod Crushers.
Ornamental Stall Divisions.
Stall Posts and Rails.
Hay Racks and Mangers.
Pig and Poultry Troughs.
Water Troughs for Cattle.

Where Shipping Orders will be immediately attended to, and every facility offered for inspecting the articles.

LIVERPOOL, *May*, 1859.

WIRE FENCING, HURDLES, ETC.

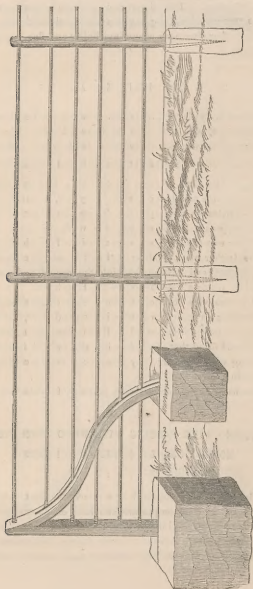
IN connection with the Improvement of Landed Property, obviously the first thing to be attended to is the proper arrangement and sub-division of it, by fencing; and the various modes by which this is done, being by Strained Wire Fences, Hurdles, Continuous Bar Fence, Wire Netting, &c., J. B. would, therefore, first direct attention to

STRAINED INVISIBLE WIRE FENCING,

which in its various forms is applicable for enclosing and subdividing parks, lawns, shrubberies, flower gardens, ornamental walks, railways, &c., and constructed to resist horses, cattle, sheep, and lambs. The essential qualities of the system consist, so far as regards ornament, in its accommodation to landscape and to natural taste, while thoroughly scientific and mechanically perfect—in its simplicity, and, at the same time, elegant uniformity of construction,—in its variety of combination for local and peculiar circumstances,—and in its harmonising taste with economy. The practical recommendations may be enumerated—as, its durability, economy, efficiency, and the facility with which it can be erected in any situation, and over every peculiarity of ground, combined with its peculiar adaption to every purpose for which fencing is required; while at the same time it affords a substitute for old methods so detrimental to agriculture and live stock.

The design (Figure 1) represents a Strong Iron and Wire Fence for Horses, Cattle, Sheep, and Lambs, with strong Wrought-iron Straining Pillars, and Intermediate Uprights. The Straining Pillar and Stay being set in Stone, and the Uprights in Wood Blocks. For such purposes the fence is made with six or seven horizontal wires, according to the requirements

FIG. 1.



of the situation. This description of fence is that generally put up through pleasure grounds, along the sides of approaches, and in all other situations where invisibility and fine appearance are objects.

THE PRICES ARE

| | |
|-----------------------------|-------------------------------------|
| For Horses, Cattle, &c..... | 1s. 8d. to 2s. 0d. per lineal yard; |
| For Cattle, Sheep, &c..... | 1s. 4d. to 1s. 8d. per do.; |
| For Sheep, Lambs, &c..... | 1s. 2d. to 1s. 4d. per do.; |

varying according to the height, strength, and number of wires.

Should the line of fence be curved, a few iron stays are necessary, which are charged extra; very few, however, in ordinary circumstances, are required. These prices include all the time and expenses of men erecting the work, when the amount of the order exceeds £25, but are exclusive of the blocks for the uprights, (either wood or stone will suit as is most convenient), labour, boring, and putting them into the ground, and materials for batting, which are performed by the Proprietor.

With the view of meeting the wishes of gentlemen who prefer putting up their own Fences in Iron and Wire, and for the execution of orders from abroad, J. B. supplies the materials so prepared and fitted that, by following the printed instructions sent along with all orders, any person can erect a considerable quantity in a day.

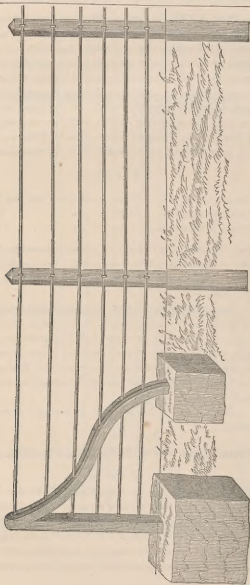
Estimates for the materials so prepared furnished on application.

STRONG WIRE FENCING WITH WOOD POSTS FOR HORSES, CATTLE, SHEEP, AND LAMBS,

(See Fig. 2.)

Is similar to the foregoing, and is peculiarly the most suitable in every respect for common pasture and field enclosures, being in all cases in the end, and in some even at first cost, very considerably cheaper than the common wooden paling. It consists of six or seven Rods of Wire as the situation may require, stapled to

FIG. 2.



Wooden Posts, and having Cast or Wrought Iron Pillars firmly batted into stone, at distances of about 100 yards. The great advantage of this plan is that it renders the Fence in a manner everlasting; for when any of the intermediate uprights in course of years decay, they can be easily renewed without the necessity of cutting the wires, by simply withdrawing the staples from the old uprights, and attaching the wires with the same staples to the new, the Fence remaining all the while permanently at full stretch from the Iron Straining Pillars. Wooden Straining Pillars, however, are frequently used, but the others are recommended.

PRICES.

| | | | |
|----------------------------|---------------------------------------|-----|-----|
| For Horses, Cattle, &c.... | 10d. per lineal yard, with Six Wires, | | |
| For Cattle, Sheep, &c. ... | 8d. per | do. | do. |
| For Sheep, Lambs, &c.... | 7d. per | do. | do. |

Including the time and expense of workmen erecting the same when the amount of the order exceeds £25; but exclusive of the Wooden Uprights, which are furnished and put into the ground by the Proprietor.

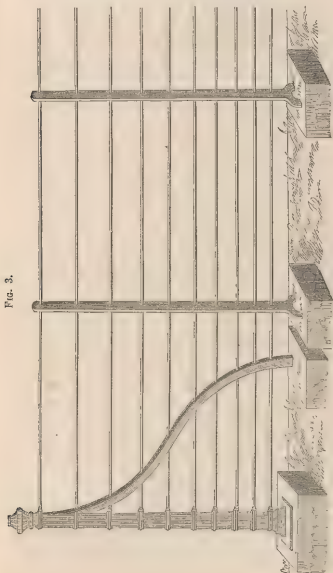
At the suggestion of several parties, and to meet what has been in many cases a desideratum, J. B. supplies the material for the above Fencing so prepared that Proprietors can have it put up by their own work-people, from time to time, as required. In this case, printed instructions, illustrated with Woodcuts, are furnished with each order, and tools for erecting the same may be had at a moderate charge.

Estimates for the materials so prepared furnished on application.

STRONG IRON AND WIRE FENCES, FOR DEER, &c.,

(See Fig. 3)

Are now quite superseding the Stone Walls and Wooden Palings, which hitherto have been the only means at the disposal of Proprietors for this purpose. The enormous expense of Stone Walls—and the total insufficiency, after a few years' exposure, of Wooden Paling, besides its unsightly appearance and expense, have been the great obstacles which have so often prevented no-



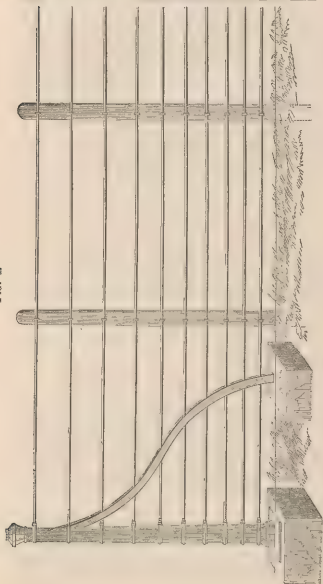
blemen and gentlemen from adorning their parks and domains with Deer. Strained Wire Fencing, however, besides being considerably cheaper, possesses the great advantage of being quite invisible at a short distance, enabling Proprietors to subdivide their parks to any extent without its being apparent—thus giving an unlimited idea of the extent of ground appropriated for the Deer, at the same time keeping them close to the mansion, and allowing other portions of the domain to be grazed with stock.

The success of this method for the enclosure of Deer-parks is now admitted by the most eminent authorities. The perfect symmetry to which the essential principles of Wire Fencing tends, can, in Deer Fencing, particularly, be carried out with the finest scope, and with even greater precision, as well as beauty, than is possible in the other varieties. The lines in this case, are generally more extensive, the sweeps more gentle and natural, which, combined with the facilities afforded for producing fine effect in harmony with the characteristic features of the ground, give ample material to the good taste of the Proprietor; while the experience of the practical man is brought into operation.

The Fence as shewn by Figure 3, is constructed with handsome cast-iron Straining Pillars, and strong wrought-iron Intermediate Uprights all of which are battled into stone blocks, except in localities where stone is expensive, when wooden blocks may be used instead. The price of a Fence of this description, with from eight to ten strong horizontal Wires, guaranteed as sufficient against red, roe, and fallow Deer, complete, including the time and expenses of workmen erecting the same, will range from 3s. to 4s. per lineal yard, standing from 5 feet 6 inches to 6 feet 6 inches high, according to the peculiarity of the ground; but exclusive of stones or wood blocks, &c., which portion of the work is performed by the Proprietor. If the line of Fence be curved, a few stays are necessary, which are extra; but the additional expense would be trifling.

This description of Fence, as represented by the accompanying design—Figure 4—is also frequently put up with wood uprights, to which the Wires are stapled in the same man-

FIG. 4.



ner as for Horses, Cattle, &c., having handsome cast-iron Pillars every 100 yards, and is admirably suited for dividing Forests and Mountain Ranges, where Deer are preserved for sport more than ornament, or for portions of a Pleasure Ground distant from observation. The great advantage of this plan being cheapness, as, if the Proprietor furnishes the wood posts and stones for setting the pillars on, the cost will not exceed 1s. 6d. to 2s. per yard.

Where Gates are required, they are made to correspond with the Fence, and are, of course, a separate charge, for which estimates with full particulars are furnished.

WROUGHT-IRON HURDLES AND CONTINUOUS BAR FENCE.

Where lightness of appearance is not an object, and in situations where the Fence may require occasional moving, there is no description of Fence that gives such universal satisfaction as Wrought Iron Hurdles and Continuous Bar Fence. The accompanying designs shew the sizes and specifications of those Hurdles that are found most useful for general purposes.

No. 0.



No. 0.—Premium Sheep feeding Hurdle.—These Hurdles are intended to be used when Sheep are eating off on the ground, Turnips or other description of green crop. They do not require setting in the ground, but rest upon it, being supported by Iron

Stays attached to them, which are so made as to keep them firm on the softest ground: they are placed in a leaning position, so that while Sheep get their heads through to feed, they cannot press against them to push them over. Great advantage will be found in the use of these Hurdles, as they enable the Agriculturists to consume Turnips, Rape, Vetches, &c., without turning the Sheep on the crop; thereby avoiding the loss occasioned by the animals trampling on their food, while the ground is more regularly trodden and manured than under the old system of folding. They are six feet long by three feet when set, and cost 2s. 8d. per yard.

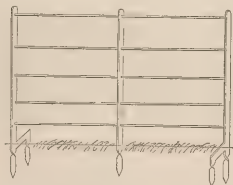
No. 1.



No. 1 Hurdle is generally made for folding sheep, where frequent removal is required; it is therefore made with single prongs only, in order that they may be easily shifted, and to avoid the liability of having the double prong broken off, which cannot but happen when often moved. It is 6 feet in length, by 3 feet 4 inches in height, and consists of five horizontal bars, of which the top one is $\frac{3}{4}$ inch, and the others $\frac{1}{2}$ inch diameter. Ends $1\frac{1}{2} \times 5-16$, with intermediate upright $1\frac{1}{2} \times \frac{1}{2}$. Present price 1s. 10 $\frac{1}{2}$ d. per yard.

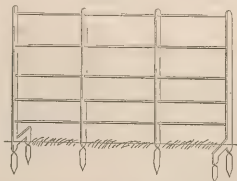
The same Hurdle is sometimes made having the ends of Angle Iron, which gives great strength to them, and does not materially increase the price, as they can be supplied at 2s. per yard.

No. 2.



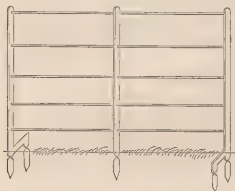
No. 2.—A good useful Hurdle for Cattle and Sheep,—is 6 feet in length, by 3 feet 7 inches high, and consists of five horizontal bars, of which the top one and the second from the ground are $\frac{1}{2}$ inch, and the others $\frac{1}{2}$ inch, diameter. The ends, which have double prongs, are $1\frac{1}{2} \times \frac{1}{2}$, and the intermediate upright $1\frac{1}{2} \times \frac{1}{2}$. Present price 2s. 5d. per yard.

No. 3.



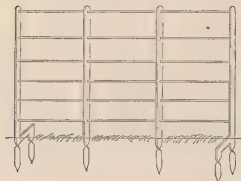
No. 3.—Extra strong Cattle and Sheep Hurdle—6 feet in length, by 3 feet 6 inches high, with five horizontal bars, viz., top bar $\frac{1}{2}$ and the others $\frac{1}{2}$ inch diameter. Ends and intermediates $1\frac{1}{2} \times 5-16$. Present price 3s. 3d. per yard.

No. 4.



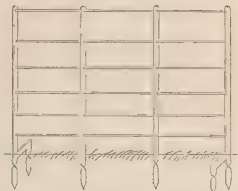
No. 4.—Strong Horse and Cattle Hurdle—6 feet in length, by 3 feet 9 inches high, with five horizontal bars, viz., top bar $\frac{3}{4}$ and the others $\frac{1}{2}$ inch diameter. Ends and intermediates $1\frac{1}{2} \times \frac{3}{8}$. Present price 3s. 5d. per yard.

No. 5.



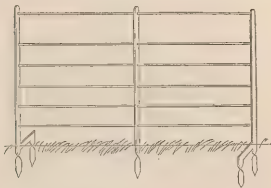
No. 5.—Hurdle for Cattle, Sheep, and Lambs—6 feet in length, by 3 feet 6 inches high; top bar $\frac{5}{8}$, and the others $\frac{1}{2}$ inch diameter. Ends $1\frac{1}{2} \times \frac{3}{8}$, intermediates $1\frac{1}{2} \times \frac{1}{4}$. Present price 2s. 8d. per yard.

No. 6.



No. 6—Extra Strong Hurdle for Horses, Cattle, Sheep, and Lambs—6 feet in length, by 4 feet high, having six horizontal bars, of which the top is $\frac{3}{4}$ inch, and the others $\frac{5}{8}$ inch diameter. Ends and intermediates $1\frac{1}{2} \times \frac{3}{8}$. Present price 4s. per yard.

No. 7.

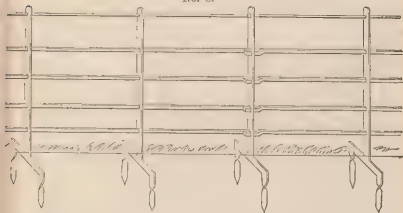


No. 7—Premium Hurdle for Cattle, Sheep, and Lambs—6 feet 6 inches in length, by 3 feet 6 inches high, with six horizontal bars, of which the top is $\frac{3}{4}$ inch, and the others $\frac{1}{2}$ inch. Ends $1\frac{1}{4} \times \frac{1}{4}$, with intermediate $1\frac{1}{2} \times \frac{1}{4}$. Present price 2s. 2d. per yard.

N.B.—Gates and Wickets are frequently introduced in Hurdle Fences, and are made to correspond with those in every respect. The former, when eight or nine feet wide, are made in two leaves, and are sometimes hung to the ends of Hurdles which are made extra strong for that purpose, but as that throws a great strain on the Hurdle it is better to have Pillars made for them. When hung to the ends of Hurdles they cost £1 2s 6d. and £1 5s., according to their strength. If hung to Pillars the price is 8s. to 10s. extra for these.

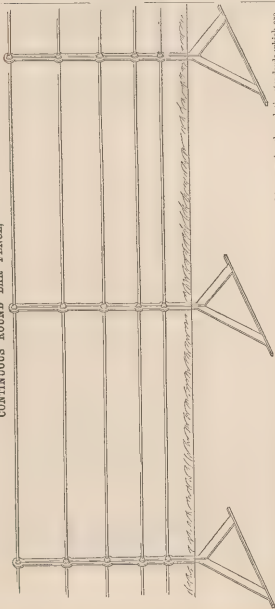
Wickets of the same description, hung to ends of Hurdles, cost 12s. to 15s. complete with Latch and Catch.

No. 8.



No. 8.—Continuous Bar Fence is made of various heights, from 3 feet 4 inches to 4 feet 6 inches high, the usual height being 3 feet 9 inches. It consists of one round bar on the top, $\frac{1}{2}$ inch diameter, and four or more flat bars, $1 \times \frac{1}{4}$ inch, set on edge, running through strong double pronged standards, set three to four feet apart, as may be agreed upon. The top bars meet in a ferrule at the joining standard, and are secured by two pins passing through the ferrule and the bars. The flat bars overlap each other as shown. It can be made in any length, and adapted itself to every inequality of the ground. Prices range from 2s. 3d. to 3s. 6d. per yard, according to height and number of bars. That with five bars as shown, and 3 feet 9 inches high, costs at present 2s. 6d. per yard.

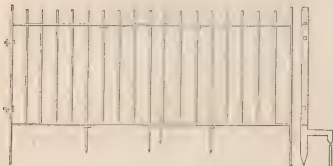
CONTINUOUS ROUND BAR FENCE,



With handsome Cast Iron Standards. This Fence stands 4 feet high, and consists of five bars, of round iron running through the standards which are generally set six feet apart. It is very strong and massive, the top bar being $\frac{1}{2}$ inch, the next $\frac{3}{4}$ inch, and the three under ones $\frac{1}{2}$ inch diameter. These are secured at the joining standards by pins passing through the socket and the bars, so that it is impossible to move them. It is particularly adapted for a Carriage Drive, and has a massive and bold appearance. Price 5s. 6d. per yard.

VERTICAL BAR FENCE.

No. 10.



No. 9.—This description of Hurdle is mostly used for enclosures, alongside of which a public foot path or occupation road runs. It is made in 9 feet lengths, and of various heights, from $3\frac{1}{2}$ to $4\frac{1}{2}$ feet; the strength of the bars varying from $\frac{1}{2}$ inch to $\frac{3}{4}$ inch diameter; and prices ranging from 3s. 6d. to 6s. per yard.

STRONG STRAINED HARE AND RABBIT PROOF WIRE FENCES,

FOR ENCLOSING FLOWER GARDENS, SHRUBBERIES, NURSERIES, ETC.

This is a most important department of J. B.'s system of Fencing, as it is constructed to afford perfect protection from the destructive ravages of Hares and Rabbits, to that portion of pleasure-grounds, generally the most ornamental and valuable. This style of Fence is also well adapted for portions of railways that intersect Nurseries and the private ornamental grounds of landed proprietors.

In all situations where the fence is intended to be permanent, and a large quantity required, *strained* fences are recommended as the most suitable. They are put up in the same manner as the others, the game proof wiring being laced on after the fence is made.

ORNAMENTAL PATTERN.



PRICES.

3s. 3d., 3s. 6d., 3s. 9d., and 4s. per lineal yard,

According to the height and strength.

This pattern is generally erected when intended to surround mansions in the Gothic style. It is usually made from $2\frac{1}{2}$ feet to 3 feet in height.

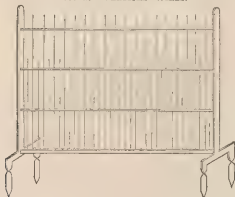
PLAIN PATTERN.



This is a plainer pattern than the one preceding, but equally efficient, and will cost less. The prices are 3s., 3s. 3d., 3s. 6d., and 3s. 9d. per lineal yard, including the time and expenses of workmen erecting, when the amount of the order exceeds £25; but exclusive of stones, &c., as in other fences. This pattern is usually preferred when near residences of the Grecian and Italian class, or those of a plain, simple, and modern style. The height generally is $2\frac{1}{2}$ feet.

STRONG PORTABLE ORNAMENTAL HURDLES,
FOR ENCLOSING GARDENS, SHRUBBERIES, ETC., AND SUBDIVISION OF
VILLA RESIDENCES.

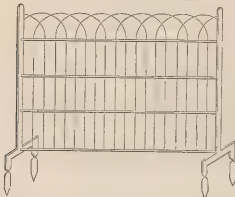
No. 1.—VERTICAL WIRES.



PRICES.

| | |
|-------------------------------|------------------------------------|
| 2 ft.....3s. 0d. per lin. yd. | 2 ft 9 in.....4s. 0d. per lin. yd. |
| 2 ft. 3 in.....3s. 4d. " | 3 ft.....4s. 4d. " |
| 2 ft. 6 in.....3s. 8d. " | 3 ft. 6 in.....4s. 9d. " |

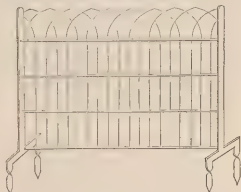
No. 2.—EXTRA STRONG WIRES.



PRICES.

| | |
|------------------------------------|--------------------------------|
| 2 ft 3 in..... 3s 9d. per lin. yd. | 3 ft..... 4s. 6d. per lin. yd. |
| 2 ft. 6 „..... 4s. 0d. " | 3 ft. 6 in..... 5s. 0d. " |
| 2 ft. 9 „..... 4s. 3d. " | 4 ft..... 6s. 3d. " |

No. 3.—EXTRA STRONG WIRES.



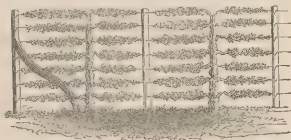
PRICES.

| | | | |
|-----------------|----------------------|-----------------|----------------------|
| 2 ft. 3 in..... | 4s. 0d. per lin. yd. | 3 ft..... | 4s. 9d. per lin. yd. |
| 2 ft. 6 „..... | 4s. 3d. „ | 3 ft. 6 in..... | 5s. 3d. „ |
| 2 ft. 9 „..... | 4s. 6d. „ | 3 ft. 9 in..... | 5s. 6d. „ |

These two last designs can also be made Hare and Rabbit proof by the addition of intermediate Wires, as in No. 1, which increases the price by 6d. per yard.

IRON AND WIRE ESPALIER,

FOR TRAINING AND SUPPORTING FRUIT TREES, ETC.



Nothing is better adapted for the purpose of training and supporting Standard Fruit Trees than Espalier constructed of iron and wire, as represented in this woodcut. It is put up on the same principle as the Strong Strained Iron and Wire Fences,

already described. Wood, which had hitherto been employed for this purpose, is expensive—lasts only for a very limited period, and when decayed it is almost impossible to remove it and have it replaced by another without injuring the trees. So much is this the case, that it is seldom attempted till it literally falls to pieces, often bringing the tree with it. Wood is, besides, most objectionable from the shadow produced by its density, rendering it most injurious to the adjoining plants and borders, while it retains wet, communicates mildew, and generates as well as harbours destructive insects in the crevices which appear in course of its decay.

The Iron and Wire Espalier has none of these disadvantages. It is highly ornamental and regular, is of strength sufficient to support any tree or number of trees, and will last, with a little attention, for almost any length of time. When required, the trees can be removed without injuring it, and of itself it causes no shadow whatever, while the cost is so moderate that it requires but a trial to be almost universally adopted. Several hundred yards have been lately put up for his Grace the Duke of Roxburgh at Broxmouth Park; at Whalley, the residence of Samuel Brookes, Esq., banker, Manchester; at Billehill, for the late John Potter, Esq., near Manchester; at Allerton, for Hardman Earle, Esq., &c., &c., where it has been the object of admiration to all who have seen it.

PRICES.

| | |
|---|---------|
| 4 feet high, with 6 wires in 40 yard stretches, | 1s. 9d. |
| 4 feet 6 " with 7 do. in do. | 2s. |
| 5 feet " with 8 do. in do. | 2s. 3d. |
| 5 feet 6 " with 9 do. in do. | 2s. 6d. |

per lineal yard, complete, with two strong wrought-iron straining pillars, two strong wrought iron stays, and strong wrought-iron intermediate uprights, every 9 or 10 feet. The whole is prepared and carefully fitted, ready for fixing, which any one can readily do by following the printed instructions sent with all orders.

If put up by J. B.'s workmen, the price is 1s. per lineal yard extra, including all their expenses, but exclusive of stones, labour, boring, and setting, and lead for batting, which are per-

formed by the proprietor. When the length of each line or stretch is under forty yards the prices are increased, varying according to the length of the stretch. If the wires are galvanized the price will be 6d. per lineal yard of Espalier extra, and should massive and ornamental cast-iron straining-pillars be preferred to the ordinary strong wrought-iron, the price will be 2d. per lineal yard extra.

Note.—In ordering this Espalier it is necessary to send a rough sketch or ground-plan of the place for which it is intended, noting the exact length of each line, and shewing any breaks that may exist.

J. B. manufactures several other varieties of Espaliers, which may be enumerated as follows:—

BALUSTER ESPALIERS, 6s. to 10s. per yard.

HURDLE ESPALIERS, 3s. to 5s. per yard.

WALL ESPALIERS, from 1s. 6d. per square yard.

CURVILINEAR ESPALIERS, 15s. to 20s. per foot.

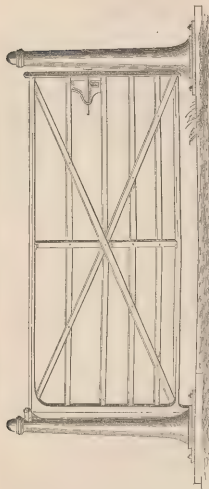
SINGLE TREE ESPALIERS, 30s. to 45s. each.

&c., &c., &c.

GATES.

For the purposes of Agricultural and ordinary enclosures no description of Gates is so advantageous in every respect, or so economical, as those constructed wholly of Wrought Iron. J. B. accordingly directs the notice of Agriculturists and Proprietors to his strong Premium wrought-iron Field Gates, which are so cheap as completely to supersede those of Wood, and from the principle on which they are constructed, are sufficiently strong to resist any pressure or usage.

STRONG PREMIUM IRON FIELD GATE.



The Gate as shewn by the above cut, is 9 feet wide, by 4 feet in height; has six strong horizontal bars of wrought iron set on edge, with one centre upright and two diagonal bars, the whole being firmly rivetted together and secured to the back stile with solid iron knees. The price of these Gates, with handsome Cast Iron Pillars, is £2 5s., complete with Slip Bolt and Hasp, and eight Bolts for securing the Pillars. The same Gate, with mountings for Wood or Stone Posts, costs £1 8s. 6d.

When Six or more are ordered at once, the prices are £2 2s. each for the Gate and Pillars, and £1 6s. 6d. for the Gate and mountings for Wood or Stone Posts.

**STRONG WROUGHT IRON PREMIUM RAILWAY
FIELD GATES.**



These Gates are constructed upon the most approved principle to combine strength with lightness. They are perfectly secured from dropping by diagonal bars, and from twisting, by having the back styles welded to the top and bottom bars with strong solid knees.

Specimens of these Gates were exhibited at the shows of the Highland and Agricultural Society of Scotland at Edinburgh, Dumfries, and Dundee, and were highly approved of by the judges "*on account of their cheapness and good workmanship.*" They were shewn at the meeting of the Royal Agricultural Improvement Society of Ireland, held at Belfast, where their superiority gained a high Premium and the Silver Medal; and they also carried the Silver Medal at Glasgow. These Gates are constructed for the general requirements of gentlemen's farms and domains.

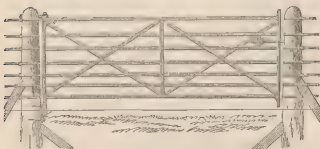
They are 9 feet wide, by 4 feet high, and complete

with cast iron pillars, as shown, cost.....£3 10s.

If Six or more are ordered at once, the price will be £3 5s.

Or if Twelve Sets are taken, they will be charged £3 5s.
and delivered free at any Port in England or Ireland.

STRONG WROUGHT IRON PREMIUM RAILWAY
FIELD GATE,
FOR WOOD OR STONE POSTS.



This Gate is the same as the foregoing, but is intended to be hung to Wood or Stone Posts, the necessary fittings for that purpose are sent along with them, and for a single Gate

9 feet wide, by 4 feet high, costs.....£2 2s. 6d. each.

If Six of them are ordered at once, the price is.....£2 each.

And when Twelve are taken they are delivered free at that price at any Port in England or Ireland.

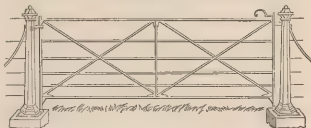
TUBULAR IRON GATES.



The use of Tube Iron in the manufacture of Gates gives great strength both in appearance and reality, while the gate itself is very much lighter than if made of solid iron. It can be used in the construction of all kinds of Gates, but is more particularly adapted for Carriage Gates, in a line of Continuous Bar Fence. The foregoing diagram represents such a Gate, size 10 by 4 feet, price £2 15s., with mounting for stone or wood; and £4 4s. with cast iron pillars.

FINE WROUGHT IRON CARRIAGE GATES,

TO CORRESPOND WITH STRAINED WIRE FENCES.

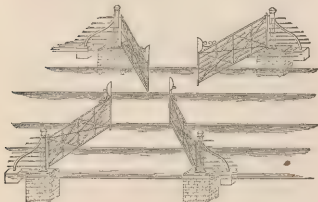


When a line of Strained Wire Fence crosses or runs alongside an Approach or Carriage Drive, it is necessary that any gates required should correspond, as nearly as possible, with the fence, consistent with strength. The pattern shewn above is the gate recommended for this purpose. The workmanship is in the best style, and in all places where they have been put up they have been much admired.

The Prices—Single Leaf, 10 feet wide by $3\frac{1}{2}$ feet and 4 feet high—vary from £4 15s. to £5 15s., including the necessary posts, which at the same time act as straining-pillars to the fence; and Double Leaf Gates, same size, complete, £5 15s. to £6 15s.

SIMULTANEOUS-ACTING IRON GATES,

FOR RAILWAY LEVEL CROSSINGS,



Are made in sets of 2 or 4, according to the width and nature of the crossing. Each gate or leaf in the set is constructed entirely upon the same principle as the others manufactured by J. B., with strong solid back styles welded to the top and bottom bars. In addition to this, they are strengthened and supported by two strong angle tension-rods or ties on each side, raised in the centre by means of strong iron brackets. These tension-bars prevent the gates from twisting in the slightest degree on being opened or shut, while each leaf can be raised at the point by means of them, thereby throwing the weight of the gate from the front to the back style. Each gate is hung to its post by strong iron bridles or plumber-blocks with gun-metal bushes, working at the bottom on fine steel centres. So accurately are they fitted and hung, that the whole set, whether of two or four leaves or gates, acts easily and

simultaneously on one being moved, and by this leaf all the others are completely governed, without requiring the least force or effort to effect the movement.

Sets of Gates upon this principle can be made to act as successfully on an oblique angle as on the square; indeed they can be made to suit every peculiarity of situation or circumstance, and to open either inwards, closing up the railway, or outwards, as may be required. By this means the whole can be opened or shut at pleasure, without the necessity of the gate-keeper crossing the line. They can be constructed to any width needed. Some sets on the Scotch Central Line were made sixty feet wide on the Skew line; and on the Stour Valley there are some for seventy feet crossings.

The importance of these Gates for crossings on a level cannot be too highly estimated. Their simplicity of construction is such, that there is not the least likelihood of their going out of order; and if ever they should, it can only be at the bottom of the back styles of the Gates, to which there is easy access without breaking ground or stopping the traffic, by merely unlocking the cover of the "*wells*" in which they work. The complete command the gate-keeper has over the whole set,—the ease with which they are moved,—their great strength,—and finally, their economy, compared with all other kinds, render this application of the principle of the greatest value, more especially as Government is so stringent in its measures of safety for such situations. Their efficiency can be seen and judged of on the Edinburgh and Northern Railway; at all the important level crossings on the Edinburgh and Hawick; on the Caledonian; on the Lancashire and Yorkshire at Ashton-under-Line; Rainford and Bradleyfolds crossings; and at the Goods Depot at the North End Docks here; also on the Shrewsbury, Birmingham, and Shropshire Union; on the Shrewsbury and Stafford; Stour Valley; on the Great Northern; on the Scottish Midland,—and on all the level crossings of the Scottish Central, over the whole line, where they have met with the entire approval of the Government Inspectors and the respective Engineers.

As the price of these Gates depends entirely on their size

and situation; prices can only be quoted on receiving full information on these points, with a plan of the sites.

SIMULTANEOUS-ACTING LEVEL CROSSING GATES,

IN CONNECTION WITH SIGNALS.

Another strong recommendation in favour of these Gates, and one not the least important, is their connection with *Signals*. The apparatus is one of the simplest construction, and completely provides against the least possibility of accident through negligence on the part of the gate-keeper at the crossing, which on all lines is the spot where the greatest risk and danger to life and property is incurred. This object is effected by placing ordinary signal posts on the "*up*" and "*down*" sides of the line, at any required distance from the crossing. On these signals, and on the back styles of the gate next them, are attached pulleys, connected by means of a double line of wire, fixed in the centre of each, so that as the gates open or shut they work both "*up*" and "*down*" signals simultaneously. By this means the state of the Gates at the crossing is at all times perceived by the engineman of the coming train, affording him time to advance slowly, or stop if necessary, thus rendering him independent of the gate-keeper in the case of neglect,—and removing one of the greatest objections to level crossings, while the additional expense is trifling.

Models of these Gates, can be seen at J. B's office, shewing the working of the principle, and its simplicity.

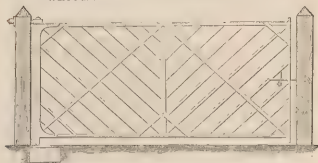
Plans, Specifications, and Estimates furnished, and contracts entered into for any amount of such work to be put up in any part of the three kingdoms, the Continent, and America.

WROUGHT-IRON SIDE-GATES,

FOR FOOT-PASSENGERS.

Made to correspond with the above described Level-Crossing Gates, to save the necessity of constantly opening and shutting the latter for passengers, and also to avoid confusion and danger.

WROUGHT-IRON TURNPIKE BAR GATES.



This Gate is made very strong, the back style being of 2 inch square iron, and the rest of the frame of T iron $2 \times 2 \times \frac{1}{2}$ with diagonals of cast iron. It is strongly braced, so that it cannot droop or get twisted. Price with mounting for stone pillars, £6 10s. to £8 10s. according to size.

J. B. also manufactures all kinds of Carriage Entrance Gates in Wrought and Cast Iron, a few of which are here shewn, but designs of a more elaborate and elegant character, with prices, can be forwarded on application.

FINE WROUGHT IRON CARRIAGE GATES,

OF VARIOUS LIGHT AND ELEGANT FORMS.

No. 1.

No. 2.



In many parts of gentlemen's grounds and domains there are places where Ornamental Iron Gates are required, and would be adopted but for the difficulty hitherto experienced of getting such at a moderate expense, combined with chasteness of design; and this has been the cause why wood has been employed so universally, to the exclusion of iron.

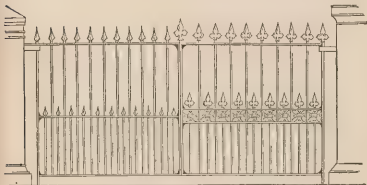
The cost of Gates, as represented in the above patterns Nos. 1 and 2, 10 feet wide by $4\frac{1}{2}$ feet high, complete, with two handsome cast iron piers as shewn, is £7 10s.; and if wished larger or smaller, the price will be in proportion.

STRONG WROUGHT IRON ENTRANCE GATES,

HUNG TO STONE PIERS.

No. 3.

No. 4.



These patterns are suitable for entrances to plain mansions, and being, with the exception of the ornaments on No. 4, wholly of wrought iron, are very strong, and at the same time light and moderate in price, ranging from £8 to £15.

WICKET GATES,

Are manufactured in a great variety of styles and patterns, for every purpose and situation of Wrought and Cast Iron.

PLAIN WROUGHT IRON BALUSTER WICKETS.

No. 1.



No. 2.



Intended principally for hanging to stone posts and walls.
Prices from 25s. to 35s. each.

ORNAMENTAL WICKETS.

No. 3.



No. 4.



For crossing garden walks, &c., when no particular style is necessary. Prices, exclusive of pillars, 40s. and 45s. each. Pillars 18s. to 24s. per pair extra.

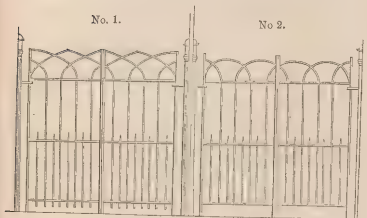
FINE WROUGHT AND CAST IRON WICKETS,

Made to correspond with the various patterns of Entrance Gates.

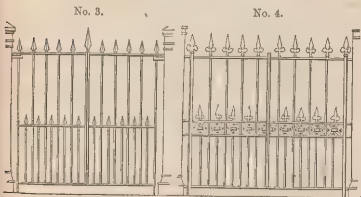
FINE WROUGHT IRON BALUSTER GATES,

FOR VILLA RESIDENCES.

These are generally made 6 feet wide, in two leaves, as shewn, and can be hung either to stone or cast iron pillars.



Nos. 1 and 2 are made of wrought iron, 9-16ths of an inch diameter, and cost £3 each, with mountings for stone. If fitted with Brass Warded Lock and Keys these are 15s. extra. The same styles of Gates are frequently used for Pony Drives and broad Grass Walks, only they are then required wider and not so high, the usual dimensions being 8 feet wide by 3½ feet in height. When so made, and hung to neat Cast Iron Pillars, the price is £5 5s. to £5 15s. Lock and Keys *extra*.



Nos. 3 and 4 are for similar purposes, but of a more ornamental character, and cost

No. 3—6 feet wide by 5 feet high, with mounting for stone, £4 0s.

8 feet wide by 4 feet high, with mounting for stone, £6 0s.

Brass Warded Lock and Keys, 15s. extra.

Handsome Cast Iron Pillars for the above, £2 per pair.

No. 4—6 feet wide by 5 feet high, with mounting for stone, £7 10s.

8 feet wide by 5 feet high, with mounting for stone, £10 0s.

Brass Warded Lock and Keys, 15s. extra.

Handsome Cast Iron Pillars for the above, £2 per pair.

HARE AND RABBIT PROOF GATES,

FOR IRON AND WIRE FENCES.

See Page 20, where they are shown with Fencing on either side.

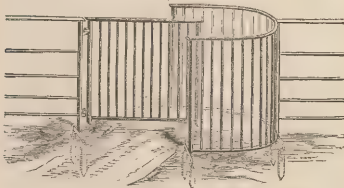
GATES AND FENCING,

FOR DOG KENNELS, YARDS, AND EXERCISING GROUNDS.

To correspond with Hurdles, as shewn at pp. 21, 22. Are made to any height, &c.

TURNSTYLES,

FOR PARKS, YARDS, AND SIDE ENTRANCES.



These are frequently introduced in Continuous Bar Fences, and cost £1 15s. to £2 5s. each.

A plainer description to correspond with Hurdles, consisting of circled Hurdle and Gate, are also made at 25s. to 30s.

CAST IRON RAILING AND BALUSTRADING,

In plain and highly ornamental designs, for Staircases, Galleries, and Churches, at 1s. 6d. to 6s. per Baluster ; and for Cemeteries at 10s. to 45s. per yard.

CAST IRON RAILING AND BALUSTRADING,

FOR RAILWAY RETAINING WALLS, LODGES, TERRACES, &c.

WROUGHT IRON RAILING,

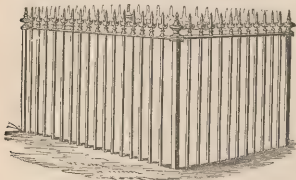
FOR ORCHARDS, DOG KENNELS, &c.,

Of all of which Drawings can be had on application.

TOMB RAILINGS,

IN VARIED AND APPROPRIATE DESIGNS.

These Railings are generally of Wrought Iron, and are at once light in appearance and strong. For exportation they are made to come in pieces, and can be put together again without difficulty. Price, according to size, £4 and upwards.



The above represents a massive Cast Iron Tomb Railing. Price, according to size, £8 and upwards.

HORTICULTURAL SECTION.

WROUGHT & CAST IRON HOT-HOUSES, CONSERVATORIES, AND GREEN-HOUSES,

With Crown and Plate Glass, planned for the smallest as well as the most extensive establishments, and heated on the most approved systems with hot air or hot water.

In the erection of Hot-Houses, the use of Iron has much to recommend it; the facility with which, by its means, the most beautiful designs can be wrought out, its elegant appearance even in the plainest form, its comparative economy and its durability, all point it out as a material vastly superior to stone or timber for this purpose.

Designs of these, with prices, sent on being informed of the size and style of House required, with particulars of situation, &c.

HOT WATER HEATING APPARATUS,

For Hot-Houses, Conservatories, Churches, Mansions, &c.

CAST IRON VASES.

For Flower Gardens, Terraces, Pleasure Grounds, &c. These are of the most elegant designs and the finest workmanship, including copies of the celebrated old and modern originals.

In this country the increased attention given to the Fine Arts themselves by a larger proportion of the community than before, has gradually caused a desire of extending their influence to the external arrangements of Grounds in the vicinity of Mansions, one principal feature of which is the reproduction of ancient specimens in connection with present use. The Vase in all its varieties is a form peculiarly suited for this, whether as a mere object of admiration in itself, or when adapted to particular purposes.

Nothing can exceed the beauty of these manufactured for J. B. The figures stand in bold relief, and as specimens of Iron Casting are not to be surpassed.



PRICES.

| | |
|-------------------------------------|-----------------------|
| 30 inches high, with figures... | ... £4 10s. 0d. each. |
| 19 inches high, do. ... | ... £2 12s. 6d. „ |
| 30 inches high, without figures ... | ... £3 7s. 6d. „ |
| 19 inches high, do. ... | ... £2 2s. 0d. „ |

ORNAMENTAL CAST IRON VASES.



PRICES.

| | |
|--|-------------|
| 30 inches high, with scroll and handles... | ... £2 15s. |
| 30 ditto, without ditto ... | ... £2 10s. |
| 24 ditto, with ditto ... | ... £2 2s. |
| 24 ditto, without ditto ... | ... £2 0s. |

FLUTED CAST IRON VASE.

| HEIGHT. | | PRICES. |
|-------------------|---|-------------------|
| 42 inches high... |  | £6 10s. 0d. each. |
| 30 ditto | | £2 2s. 0d. „ |
| 20 ditto | | £1 7s. 6d. „ |

FLUTED TAZZA VASE.

| | | |
|-------------------|---|-------------|
| 30 in. diam. × 21 |  | £3 0s. 0d. |
| 15½ „ × 9 | | £1 10s. 0d. |

This is a very beautiful design. The casting cannot be surpassed, while its finish as a whole renders it a perfect specimen of art. It is most suitable as a centre piece to a Rockery, or figure in ornamental grounds. It is also frequently used in small gardens as a Jet d'Eau.

THE WARWICK VASE.



This is a most successful copy of the celebrated Vase. It

stands nearly 2 feet high, by about 3 feet wide, and for many situations there could not be a more beautiful ornament.

PRICE.

For the Vase £7 10s.
With Pedestal to suit, 3½ feet high £3 10s.

CAST IRON JET D'EAU.

As an ornament to a flower-garden, nothing is more beautiful than a Jet d'Eau, and where a sufficient height of water is to be had no garden of any extent should be without one. In this department the variety is great, and prices are from £3 to £60.

Designs of these and of a variety of other Vases, sent on application.



SUN-DIALS.

The Sun-Dial stands next in importance to the Jet d'Eau as an ornament for a flower-garden. The price, with Dial engraved in the best style is £7.

Stand, without the Dial, £3.

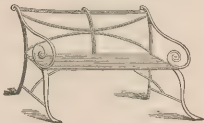
CAST-IRON PEDESTALS.



To suit the various Vases described above, at prices varying from £1 10s. to £2 10s.

All the foregoing are painted in imitation of any stone or marble with Anti-corrosive Paint, by which they are preserved effectually from rust. If preferred, they can be bronzed at a small additional cost.

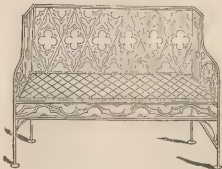
WROUGHT IRON GARDEN SEATS.



PRICES.

| | | | | |
|----------------------------|-----|-----|-----|-------------|
| Wrought Iron Seats, 3 feet | ... | ... | ... | £1 8s. 0d. |
| Ditto 4 feet | ... | ... | ... | £1 12s. 6d. |
| Ditto 5 feet | ... | ... | ... | £1 16s. 0d. |
| Iron and Wire Camp Stools | ... | ... | ... | 5s. each. |

ORNAMENTAL CAST IRON GARDEN SEAT,
GOTHIC PATTERN.



This Chair is made to unscrew for packing.

PRICE.

| | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|------|
| 3 feet | ... | ... | ... | ... | ... | ... | 30s. |
| 4 feet | ... | ... | ... | ... | ... | ... | 35s. |
| 5 feet | ... | ... | ... | ... | ... | ... | 40s. |

ORNAMENTAL CAST IRON CHAIRS,

WITH WOOD SEATS.

J. B. has a great variety of these, in very elegant and chaste designs, painted Green or Statue Bronze, viz. :—

VINE PATTERN, No. 18.



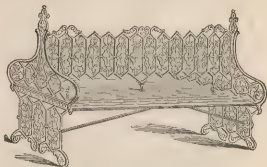
| | | | Green. | | Bronzed. |
|-------------|-----|-----|----------|-----|----------|
| 3 feet wide | ... | ... | 30s. 0d. | ... | 32s. 6d. |
| 4 feet wide | ... | ... | 32s. 6d. | ... | 35s. 0d. |
| 5 feet wide | ... | ... | 37s. 6d. | ... | 40s. 0d. |
| 6 feet wide | ... | ... | 42s. 6d. | ... | 45s. 0d. |

GOthic, WITH ESCUTCHEON, No. 22.



| | | | Green. | | Bronzed. |
|-------------|-----|-----|----------|-----|----------|
| 3 feet wide | ... | ... | 40s. 0d. | ... | 42s. 6d. |
| 4 feet wide | ... | ... | 42s. 6d. | ... | 45s. 0d. |
| 5 feet wide | ... | ... | 45s. 0d. | ... | 47s. 6d. |
| 6 feet wide | ... | ... | 47s. 6d. | ... | 50s. 0d. |

ARABESQUE, DOUBLE SEATED, No. 24.



| | Green. | Bronzed. |
|--------------------|-----------------|----------|
| 4 feet wide | 70s. 0d. | 72s. 6d. |
| 5 feet wide | 72s. 6d. | 75s. 0d. |
| 6 feet wide | 75s. 0d. | 77s. 6d. |

SAME PATTERN, SEATED ON ONE SIDE, No. 26.

| | Green. | Bronzed. |
|--------------------|-----------------|----------|
| 3 feet wide | 40s. 0d. | 42s. 6d. |
| 4 feet wide | 42s. 6d. | 45s. 0d. |
| 5 feet wide | 45s. 0d. | 47s. 6d. |
| 6 feet wide | 47s. 6d. | 50s. 0d. |

GRECIAN, DOUBLE, No. 25.



| | Green. | Bronzed. |
|--------------------|-----------------|----------|
| 4 feet wide | 70s. 0d. | 72s. 6d. |
| 5 feet wide | 72s. 6d. | 75s. 0d. |
| 6 feet wide | 75s. 0d. | 77s. 6d. |

SAME PATTERN, SEATED ON ONE SIDE, No. 27.

| | | | | Green. | | | Bronzed. |
|-------------|-----|-----|-----|----------|-----|-----|----------|
| 3 feet wide | ... | ... | ... | 40s. 0d. | ... | ... | 42s. 6d. |
| 4 feet wide | ... | ... | ... | 42s. 6d. | ... | ... | 45s. 0d. |
| 5 feet wide | ... | ... | ... | 45s. 0d. | ... | ... | 47s. 6d. |
| 6 feet wide | ... | ... | ... | 47s. 6d. | ... | ... | 50s. 0d. |

ACORN AND OAK LEAF PATTERN, No. 28.

| | | | | Green. | | | Bronzed. |
|-------------|-----|-----|-----|----------|-----|-----|----------|
| 5 feet wide | ... | ... | ... | 45s. 0d. | ... | ... | 47s. 6d. |

FERN LEAF PATTERN, No. 29.

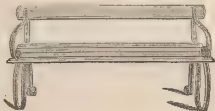
| | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|----------|
| 5 feet wide | ... | ... | ... | ... | ... | ... | 47s. 6d. |
|-------------|-----|-----|-----|-----|-----|-----|----------|

WROUGHT IRON SEAT,
TO GO ROUND TREES.



These Chairs are circular, in two halves, and can be put round trees without the least trouble, being fixed together by means of screw-bolts and nuts. They are a great protection to favourite trees, and can be made to any size. Price, 8s. per foot in circumference.

LEICESTER NEWLY-DESIGNED GARDEN SEAT.



These Seats are neat, simple, and elegant, the ends being one piece of wrought iron, and the seat of wood, combining strength, lightness, and elasticity. They are painted various colours, viz.: Oak, Drab with Green Lines, and Green with Black Lines.

P R I C E S.

| | | | | Without Arms. | | | With Arms. |
|---------------|-----|-----|-----|---------------|-----|-----|------------|
| 4 feet long | ... | ... | ... | 18s. | ... | ... | 21s. |
| 4 feet 6 long | ... | ... | ... | 20s. | ... | ... | 23s. |
| 5 feet long | ... | ... | ... | 22s. | ... | ... | 25s. |

SINGLE-SEAT CHAIR OF IRON AND WIRE.



This is a most comfortable, convenient, and economical Chair. The seat being made of wire, renders it as pleasant to sit upon as a stuffed chair. It is light and portable, so that it can be lifted about from place to place without effort.

Price 12s. 6d.

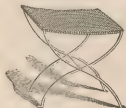
WROUGHT IRON FOLDING GARDEN CHAIR,
WITH SPIRAL GALVANIZED WIRE SEAT AND BACK.



PRICE.

| | | |
|-----------------------|------|-----|
| With Arm Rests | 17s. | 6d. |
| Without Do. | 14s. | 6d. |

WROUGHT IRON FOLDING CAMP STOOL,



PRICE.

| | |
|---|-----|
| With Spiral Galvanized Wire Seat | 5s. |
|---|-----|

STRONG IRON AND WIRE ARCHWAYS,
CONSTRUCTED TO COME IN PIECES FOR CARRIAGE.



This pattern of Archway is well adapted for Cottages and Lodge Doors, Garden Entrances, and for putting against a garden-wall to form a Bower or Summer-seat. The frame-work is made in the strongest manner of wrought-iron, upon which the wire-work is wrought. It is fixed in the ground by means of bats run with lead into small stones, and when intended for a wall or cottage door, is secured by means of holdfasts, all of which are sent for the purpose.

PRICES.

35s., 40s., 45s., 50s., 55s., and 60s. each, according to size.

PLAIN IRON AND WIRE ARCHWAYS,

Similar to the above, but without the border.

Price 35s. each.

STRONG IRON AND WIRE COLUMN ARCHWAYS,

CONSTRUCTED TO COME IN PIECES FOR CARRIAGE.



This Archway is intended for crossing Garden-Walks, for the purpose of training Creepers, Climbing Roses, &c., and can be made to any size, to suit the place for which they are intended. As in the others, the whole frame-work of this Arch is of wrought iron. The ornamental wire-work is afterwards finished; and as the pattern is generally placed in more exposed situations than any of the others, it requires to be proportionably stronger. Each column is made with a prominent base, which is secured to large stones by means of strong cross-straps and bats. When covered with creepers this Archway has a most imposing effect; and even of itself it is an ornament.

PRICES.

40s., 50s., 60s., and 80s. each, according to size.

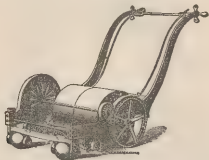
LIGHT IRON AND WIRE COLUMN ARCHWAYS,

FOR NARROW WALKS.

These Columns are much lighter than the above, and are adapted either for crossing narrow walks, or in forming a succession of Arches along each border over which creepers are trained.

Prices various.

BY ROYAL LETTERS PATENT
PICKSLEY, SIMS & CO'S
PATENT LAWN MOWING MACHINE,
FOR PLEASURE GROUNDS, BOWLING GREENS, VERGES, &c.



P. S. & Co. respectfully invite comparison and trial of their Patent Machine with all others manufactured, and have no fear of the result. The advantages of their Patent over all others are as follows, viz. :—The whole of the wheels are entirely encased, so that the grass can be mown quite close to the flower-beds or shrubs without the least fear of their being damaged or broken, and prevents the possibility of grass, leaves, or branches of shrubs coming in contact with the wheels, thereby obviating the possibility of their being damaged or broken, so often complained of in all other machines. This Machine will mow undulating ground or hill-sides, and can be either drawn or pushed forward (the drawing being the easiest and most preferable) It has greater facilities in quick turnings, so that it will mow round a twelve-inch circle; the Machine cutting all the time, and without fear of damaging the roots of grass by the drag, or tearing with the front rollers or wheels, as in all other machines. Our improvement in this part is, that it works on balls inside of cups, with friction balls on the side, which enable it to be pushed forward, or turned to the right or left (the balls turning any way that may be required), while it works with perfect ease, and cannot get out of order. There is a further improvement in adjusting, so that the most inexperienced hand

cannot set it out of truth. The cutters being raised and lowered by a rack and pinion motion, both sides are raised or lowered at the same time, to the greatest exactitude.

Manner of Keeping the Machines in order.—Occasionally apply a little oil to the axles, and along the edge of the curved blade. The revolving cutters should only touch the edge slightly; if at any time they require adjusting, slacken the four set-screws that hold the adjusting slide, and regulate the adjusting screws on each side of the Machine until it will cut paper; then tighten the screws again. Be sure not to let the cutters press too hard against the bottom blade, as it will make it hard work, and is likely to strain it. To raise or lower the Machine, put the handle on the square spindle at the side of the Machine, and slacken the screws at the end, turn the handle to the height required, then tighten the screws again. If at any time the friction-balls wear, ease the screws, press the cup to the balls, and tighten as before.

When the revolving cutters require sharpening, oil the edges, and shake a little flour of emery on them; unscrew one of the wood handles, and screw it in the large tooth-wheel outside the frame, and turn it backwards and forwards for some time; lastly, wipe the blades quite clean from emery, and set the adjusting screws as before described.

PRICES, INCLUDING PACKING CASE.

| | | | | | | | | |
|-----------|------------|-----|-----|-----|-----|-----|-----|---------|
| 13 Inches | ... | ... | ... | ... | ... | ... | ... | £5 10 0 |
| 16 " | ... | ... | ... | ... | ... | ... | ... | 6 0 0 |
| 19 " | ... | ... | ... | ... | ... | ... | ... | 6 10 0 |
| 22 " | ... | ... | ... | ... | ... | ... | ... | 7 0 0 |
| 26 " | (for Pony) | ... | ... | ... | ... | ... | ... | 10 0 0 |
| 30 " | do. | ... | ... | ... | ... | ... | ... | 18 0 0 |

If the Rollers are made the full length of Cutters, the 13, 16, 19, and 22 inch Machines are 6s. each extra; 26 and 30 inch ones 12s. extra.

GARDEN ROLLERS.



The Cylinders of these are of the same diameter as their width, and they are fitted with Back Balances.

PRICES.

| | | |
|------------------|----|----------|
| 18×18 inches ... | £2 | 2s. 0d. |
| 20×20 ditto ... | £2 | 8s. 0d. |
| 22×22 ditto ... | £2 | 14s. 0d. |
| 24×24 ditto ... | £3 | 2s. 6d. |
| 26×26 ditto ... | £3 | 8s. 0d. |
| 28×28 ditto ... | £3 | 12s. 6d. |

GARDEN PUMPS.

THIS DESIGN WITH COPPER WORKING BARREL,

| | |
|---------------|------------|
| 2½ inch | £2 15s. |
| 3 inch | £3 0s. |
| 3½ inch | £3 7s. 6d. |
| 4 inch | £3 15s. |



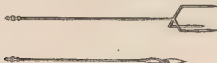
PLAIN PATTERN, WITH IRON WORKING BARREL,

| | |
|---------------|---------|
| 2½ inch | £1 10s. |
| 3 inch | £1 15s. |
| 3½ inch | £2 0d. |
| 4 inch | £2 10s. |

SMALL GARDEN OR HOUSE PUMPS.

| | | | |
|----------------------------------|------|------------------|------|
| 18 in. high | 20s. | 22 in. high..... | 26s. |
| 18 in. high, ...with stand | 30s. | 22 in. high..... | 35s. |

WROUGHT IRON FLOWER STAKES.



PRICES—SINGLE PRONG.

| | Plain Rods. | | Spiral Iron. |
|-------------------|--------------------|-----|--------------|
| 4 feet long..... | 8s. 0d. per dozen. | ... | 9s. 6d. |
| 4½ feet long..... | 9s. 0d. | " | 10s. 6d. |
| 5 feet long..... | 10s. 6d. | " | 12s. 0d. |
| 5½ feet long..... | 11s. 6d. | " | 14s. 0d. |
| 6 feet long..... | 12s. 6d. | " | 16s. 0d. |

STRONG WROUGHT IRON FLOWER STAKES

With 3 prongs, for supporting Standard Roses, Dahlias, &c., in exposed situations. Where single pronged stakes are insufficient, these also are preferable, as they do not act as a conduit for rain, which the single prong does.

PRICES.

| | |
|--------------------|-----------------|
| 4 feet long | 20s. per dozen. |
| 4½ ditto | 24s. ditto. |
| 5 ditto | 27s. ditto. |
| 5½ ditto | 30s. ditto. |
| 6 ditto | 33s. ditto. |
| 6½ ditto | 36s. ditto. |

As they increase in height, these Stakes require to be proportionably stronger. All painted green.

CAST IRON HAND GLASS FRAMES.



PRICES—UNGLAZED.

| | |
|------------------------------------|-------------------------|
| 12 inches square | 4s. 0d. |
| 18 ditto | 5s. 0d. |
| 20 ditto | 6s. 6d. |
| 22 ditto | 9s. 0d. |
| 24 ditto | 10s. 6d. each.—Painted. |
| Octagon, 16 inches diameter | 4s. 6d. |
| Do. 19 do. | 6s. 3d. |

AGRICULTURAL IMPLEMENTS.

In submitting the following List of Implements, J. BANKS begs to intimate that, for the convenience of Agriculturists and others he has opened a Depot for these articles, at No. 30 and 32, Great Homer Street, opposite the Hay Market, where he will always have on hand a Stock of the best and most approved Implements by the most eminent Manufacturers; and he respectfully begs to call the notice of Shippers to this, and that he will be able to execute orders, on short notice, and at Maker's prices.

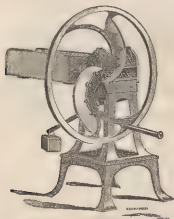
PRIZE CHAFF MACHINES.

The well known character of these, as having carried off Prizes at all the principal Agricultural Meetings in the country, prevents the necessity of more than referring to them, and J. B. assures his friends and the public, that they combine all the most recent improvements.

The construction of these Machines offers many important advantages, as the rollers have hooked teeth (in place of the old form of grooved cylinders), which uniformly bring forward the feed with certainty, and are not liable to the inconvenience of choking, while they admit of any variation in the feed to suit the power employed; and by means of toothed wheels a change can be readily made to cut any required length.

In recommending these Machines, it is unnecessary to explain the many and great advantages to be derived from their use, particularly in connection with the Steaming Apparatus. In public stables the saving they effect is most important. "Indeed, so visible are the results of feeding with cut fodder (whether as regards economy or the improved condition of animals so fed), that no stable should be without a Machine suited to its extent, even where there is but one horse kept."

The superior style of workmanship in this new class of Chaff-cutters is particularly manifest in the improved bearings, fitted with brass journals and loose caps, which can quickly be adjusted as the journals wear in their bearings, or when renewal is required.

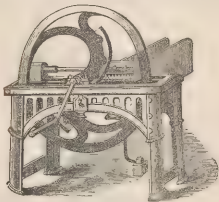


No. 57. Chaff-Cutting Machine, constructed entirely of Iron, and fitted with toothed rollers. Careful attention has been given to the feed rollers, and the rising of the mouthpiece, to avoid the inconvenience of choking. It is fitted with two knives, and the mouth is eight inches wide. Its compactness is most important to exporters, giving it an advantage in the economy of space and cost of packing. Price, £3 15s.

DIRECTIONS FOR USE.—In feeding the machine with hay or straw, be particular in keeping the feed of an equal and regular thickness, and it will be found to cut more, and easier, than when it is over-fed, and entirely prevent the Machine from being strained or broken.

No. 58. This is a smaller size of the same Machine, as the above, the mouth being 7 inches wide, and not rising. It is the most useful size for parties keeping two or three horses. Price £2 10s.

No. 3 B CHAFF MACHINE. PRICE £7.

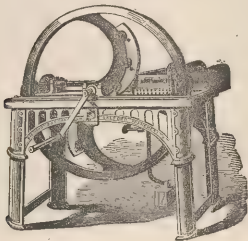


No. 3 B Chaff Machine is 9 inches wide in the mouth, and rising from $1\frac{1}{2}$ to 4 inches. Adapted for hand or power. Price £7. Pulleys for power, 9s. Change wheels, 6s. per pair. Extra knives, 4s. 6d. each.

The wearing parts of these celebrated Machines are not liable to get out of order, a reduction of power and gain of speed, with a great saving of labour, being at the same time effected.

No. 4 B CHAFF AND GORSE MACHINE. PRICE £10.

[REGISTERED AS ACT DIRECTS.]



No. 4 B Chaff Machine is 11 inches wide in the mouth, rising from $1\frac{1}{2}$ to 5 inches. Adapted for hand or power. Price £10. Pulley for power, 9s. Knives, 4s. 6d. each. Change wheels, to vary the length of cut, 6s. per pair extra.

This Machine has registered improvements similar to the last-mentioned, fitted with the well-known self-feed safety tooth roller, the form of which has recently been improved and reconstructed, so that the feeding is thereby facilitated, and even occasional slippage and choking are prevented. The Machine is made entirely of iron, firmly bolted and stayed together, standing steadily, and working with comparative ease. Its bearings are of brass, and the working parts are fitted with the greatest precision.

At the Highland and Agricultural Society's Meetings, the First Prize was awarded to this Machine as the best Chaff-cutter for hand.

Gorse or Furze, which can be grown to profitable account on lands of little value, has been proved a nutritious and economical food for horses and cattle. It is at once a substitute for Hay, and an excellent green food in the winter; while the only obstacle to its general use hitherto, has been the want of an inexpensive Machine to reduce it to a proper state for consumption.

This difficulty is effectually overcome by the use of the above machine, fitted with gear wheels, arranged, to reduce the prickles or thorns to almost a pulp, so that both horses and cows eat it with avidity.

Gorse cut with this machine requires no after operation of passing through bruising rollers. It is therefore a great economiser of time and labour, and can be worked by hand or power.

Price £10. Pulley for power, 9s. extra; knives, 4s. 6d. each; change wheels, to vary the length of cut, 6s. per pair.

CORN CRUSHERS.

The peculiar construction of these Mills consists in their effective arrangement for bruising the various descriptions of grain without change of rollers.

Bruised Corn is well known to be more nutritious, and consequently more economical, than the grain in its natural state.

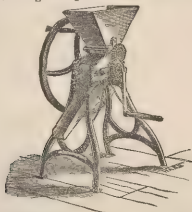
Bruised Oats will go one-half further in measure after being

well crushed, while the horse is put into better condition for work at less expense.

Oats, if given uncrushed, are swallowed without mastication, as is obvious from their being voided in a whole state, and consequently of very little or no benefit to the animal. If the corn be bruised, it can be taken with safety, as it will be deprived of its vitality; while crushing greatly facilitates the mastication and digestion of the food, and all the functionary processes are thereby much quickened.

The advantage of preparing food for horses is now so universally admitted, that a mill for that purpose is considered to be most indispensable, where economy is made a consideration.

The economical and beneficial effects of using crushed food for all cattle is so generally acknowledged, that it only remains to offer the best and cheapest machines for that purpose, amongst which the following stand pre-eminent:—

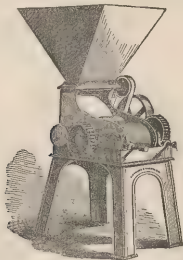


No. 1. Mill for kibbling Peas, Beans, Oats, Indian Corn, &c., with diagonally machine-fluted and case-hardened rollers. It is simple in construction, and low in price, but of great efficiency and durability, and is mounted upon iron legs. A simplified feature in this mill is the employment of a setting screw on the back of the feeder—a slight turn being all that is required to increase or diminish the supply on the working rollers, which are so formed as to have both a cutting and crushing action; and,

by the new application of feeding, can be regulated to suit the strength of one boy, and will kibble a bushel in ten minutes. Size of rollers, 7 inches by $3\frac{1}{2}$ inches. Price £5 5s.

The rollers of these Mills are fluted and case-hardened, and are fitted in strong brass bearings. The whole of the boring and turning is done to standard gauges, so as to secure perfect uniformity of size.

No. 2 Mill is upon the same principle as the foregoing, and is recommended for any of the above purposes, being both speedy and effective in its operations. The rollers may be set at any distance apart by a simple screw in front of the mill, which moves in parallel bars the front roller, and, with the least pressure of the finger, can be made to adjust the rollers to bruise to any degree of fineness. Both this and the former are very simple in their construction, and not likely to get out of order if attention be paid to keeping the wheels and bearings clean, and using good oil. Size of rollers, 9 inches by 4. Applicable to hand or power. Price £6 10s.; pulley 9s. extra.



No. 3 Mill is admirably adapted for power, being mounted on a strong iron frame, which imparts steadiness to its operations,

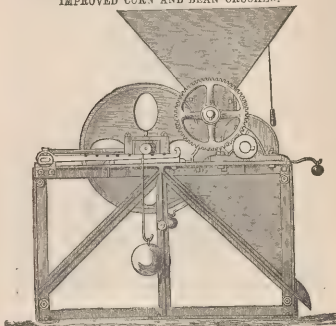
while the great strength of the machinery, which is most accurately fitted with a parallel adjustment, can instantaneously be regulated by two hand-screws in front to crush to any degree of fineness. This mill, combining the best features of former inventions, possesses some important improvements, being fitted with strong brass bushes, loose caps, and counter-shaft. The feed apparatus is worked by a thumb-screw at the back, and can be regulated to suit any power employed, and will be found to effect an immense saving in wear and tear; it can be driven with a 16-inch pulley, at 200 revolutions per minute, without danger to the working parts. Size of rollers 11 inches by 6½. Price, with pulley, £10 12s.

NEWLY-IMPROVED COUNTER-SHAFT CORN CRUSHER,

Recommended by the Members of the Royal Agricultural Society.

The newly-improved Mill, No. 4, is of a similar construction to the last, but much larger, and from the extraordinary strength of machinery and the superior workmanship displayed, is peculiarly well adapted to crush, with facility, a much larger quantity of grain than any other made; while the new process of hardening the rollers renders them indestructible in use, and not to be surpassed in effectiveness. Size of rollers, 14 inches by 8. Price, with 18-inch pulley, £14 15s.

IMPROVED CORN AND BEAN CRUSHER.



This very powerful Machine was specially designed for a large Carrying Company, and is capable of bruising 40 bushels of Oats per hour. It is the best Machine of the kind that has been brought before the public. Price £20.

**NEWLY-CONSTRUCTED MALTSTERS' AND BREWERS'
PLAIN ROLLER MILLS.**

Either mounted on Legs or fitted with Brackets for Posts, &c.

IMPORTANT TO MALTSTERS, BREWERS, &c.

*New Malt Mill, as stipulated by recent Act of Parliament, 18 and
19 Victoria, cap. 94, sec. 37.*

By the general order from Her Majesty's Commissioners of the Revenue Office, dated August 23, 1855, it is enforced under an absolute penalty of £200,—“That where Brewers now have to use stones, steel mill or any other contrivance than metal rollers, with plain or mounted surfaces, for crushing their Malt, they may be immediately required to remove such Machinery from their premises, and discontinue the use of the same; and that, when Brewers receive their Malt in a ground state, the officers endeavour to ascertain the construction of the Mill used for the purpose; and, if they cannot obtain correct information on the subject, samples of the ground malt to be sent to the Board.

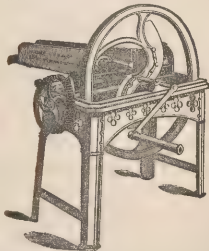
The NEW MALT MILLS, fitted in the way required by the Excise, can with confidence, be recommended as capable of performing the work efficiently, expeditiously and with economy.

PRICES.

| | |
|------------------------|----------|
| No. 1..... | £5 5s. |
| No. 2..... | £6 10s. |
| No. 3, and Pulley..... | £10 12s. |
| No. 4, and Pulley... | £14 15s. |

The above can be supplied to any extent on the shortest notice.

PATENT CHAFF CUTTERS,



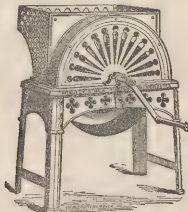
To which the following Prizes were awarded in the months of August and September last, viz.—First Prize at the Northumberland Agricultural Show held at Cornhill; First Prize at the Southport and Ormskirk Show, at Ormskirk; First Prize at the South Lancashire Show, at Warrington; First Prize at the Cheshire Show, held at Macclesfield, First Prize at the Show at Evesham; First Prize, (silver medal,) Worcestershire, Worcester; and very highly commended by the Judges as being

FIRST-CLASS CHAFF CUTTERS.

| | | | |
|--|---|----|----|
| No. 0.—Chaff Cutter, a good Machine, with strong Cast Iron Legs and grooved Rollers, with fast Mouth-piece—mouth 7 in. by $2\frac{1}{2}$ in. | £ | s. | d. |
| Extra Knives, each..... | 2 | 5 | 0 |
| No. 0A.—As No. 0. but larger Fly Wheel and Rising Top | 0 | 3 | 6 |
| Roller—mouth 8 in. by $2\frac{1}{2}$ in. | 2 | 12 | 6 |
| Extra Knives each..... | 0 | 4 | 0 |
| No. 1.—Chaff Cutter, a compact and well made Machine, with improved Tooth Rollers and Rising Mouth-piece—mouth $7\frac{1}{2}$ in.; rise, from $1\frac{1}{2}$ in. to $2\frac{1}{2}$ in. | 2 | 10 | 0 |
| Extra Knives each..... | 0 | 4 | 0 |
| No. 2.—Prize Patent Chaff Cutter, in a strong Iron Frame, has the new Tooth Rollers and Rising Mouthpiece—mouth $8\frac{1}{2}$ in.; rise, from $1\frac{1}{2}$ in. to 4 in.; and works by Bevil Wheels instead of the old Worm, and can be regulated to cut any length of Chaff, from $\frac{1}{4}$ in. to 1 in., by one Change Wheel only.—See Drawing as above..... | 4 | 10 | 0 |
| Extra Knives each..... | 0 | 4 | 0 |
| If this Machine works in Brass Steps at the front, and covered with Polished Cap, it costs extra..... | 0 | 5 | 0 |

| | |
|---|---------|
| No. 2A.—As No. 2, but larger and stronger—mouth $9\frac{1}{2}$ in.; rise from $1\frac{1}{2}$ in. to 4 in.; fitted with Brass Step and Polished Cap..... | 2 s. d. |
| Extra Knives, each..... | 6 0 0 |
| No. 3.—Prize Patent Chaff Cutter, of superior Workmanship. The Main Shaft works in Brass Steps, and the whole of the Shafts, except the Shaft for the Rising Roller, work under the Frame; has the improved Tooth Rollers and Rising Mouthpiece,—mouth $9\frac{1}{2}$ in. rise, from 2 in. to 4 in.; and will cut any two lengths of Chaff without changing a single Wheel, from $\frac{1}{2}$ in. to 2 in. and stop motion | 7 12 6 |
| Extra Knives each..... | 8 4 0 |
| No. 3A.—Same as No. 3, but cuts only one length of Chaff without Change Wheels, and no Stop motion | 7 0 0 |
| The No. 3 and No. 3A make very good Gorse Machines by Change Wheels, to cut $\frac{1}{2}$ of an inch long | |
| Extra Knives, each..... | 0 3 0 |
| No. 4.—Same as No. 3, Patent Prize Chaff Cutter. This Machine can be worked by one man, two men, horse, or steam—mouth-piece, $10\frac{1}{2}$ in.; rise, from 2 in. to $4\frac{1}{2}$ in. | 9 5 0 |
| Extra Knives, each..... | 6 5 6 |
| No. 4A.—Without double Cut and Stop Motion | 8 10 0 |
| No. 5.—Patent Prize Chaff Cutter, similar to No. 4. Mouth-piece, $12\frac{1}{2}$ in.; rise, from 2 in. to 6 in. | 15 0 0 |
| Extra Knives, each | 0 6 0 |
| No. 5A.—As No. 5, without Double Cut and Stop Motion | 14 0 0 |
| No. 6.—Patent Prize Combined Chaff and Litter Machine. The only one manufactured to cut Chaff and Litter, from $\frac{1}{2}$ in. to 6 in., and any intermediate length, by Change Wheels at the end of the Machine. Mouth, $12\frac{1}{2}$ in.; rise, from 2 in. to 6 in., quite new..... | 15 0 0 |
| Extra Knives, each..... | 0 6 6 |
| No. 7. Prize Patent Chaff Cutter, "The Leviathan Machine," the largest manufactured, fitted the same as No. 3, 4, and 5, but much stronger and Heavier, Mouth, $14\frac{1}{2}$ in.; rise, from 2 in. to 6 in. | 20 0 0 |
| Extra Knives, each..... | 0 7 6 |

TURNIP AND POTATOE SLICER.

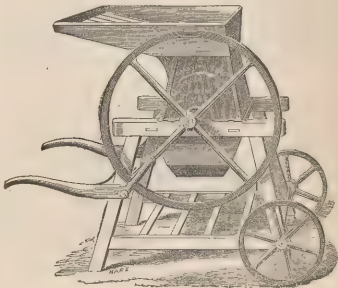


No. 1.—Improved double action Turnip Cutter, for Sheep and Cattle. This machine slices the potatoe or turnip, and cross cuts to any given size, according to the number of cross knives; for sheep, or by simply reversing the motion, (without any alteration of the knives), it slices for cattle only. The knives are of cast steel, well secured to a strong wheel, bored out and keyed on a turned wrought spindle; the bearings are all brass bushed, and well protected from dirt. The whole is enclosed in a wooden frame; can easily be worked by one man, and is adapted for power by taking off the handle, and fixing a bored pulley in its place. Price, with handle, £4 10s. Bored pulley for power, 5s. 6d., extra.

No. 2.—Improved Turnip and Potatoe slicer, for cattle only, fitted on strong wood frame, similar to No. 1, and having two cast steel knives on the fly-wheels. Price, with handle, £3 10s. Bored pulley for power, 5s. 6d., extra.

GARDNER'S HAND TURNIP-CUTTING MACHINE.

CUTS THE LAST PIECE.

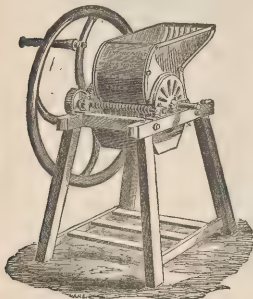


This well known Machine cuts the Turnips into slices suitable for sheep $\frac{3}{4}$ in width by $\frac{1}{2}$ in. thick. It is fitted on an improved principle, with a cast-iron box round the cutting cylinder, and mounted on a wooden frame with large wheels, so as to be easily removed from place to place.

PRICES.

| | |
|---|---------|
| Single action for Sheep | £4 10s. |
| Single action, to cut $1\frac{1}{2}$ and $\frac{1}{2}$ inch... .. | £4 10s. |
| Double action for Cattle and Sheep | £5 10s. |
| Fitted with Samuelson's Patent Grated Plate, extra | £0 5s. |

BENTALL'S PRIZE PULPER.

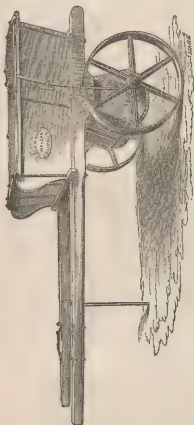


PRICES.

| | |
|---|--------|
| R P A, (suitable for power to be applied to in working,...) | £8 8s. |
| R P B, (suitable for one man or two lads to work,.....) | £6 6s. |
| R P C, (suitable for one man or stout lad to work,.....) | £5 5s. |

Bentall's Pulpers since their introduction, in 1856, have carried off first prizes at all the leading Agricultural Societies; and the fact that there is yet no machine before the public that does its work better, is evidenced by its having, during the last year, 1858, obtained the Royal Agricultural Society's prize at Chester, and that of the Highland Agricultural Society of Scotland at Aberdeen, besides those of various local societies.

PATENT CART TURNIP-CUTTING MACHINE, -No. 1.

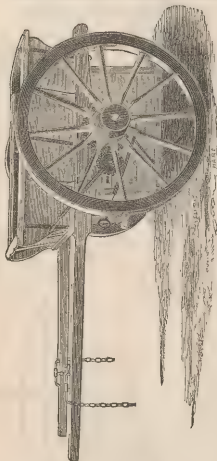


Commended by the Royal Agricultural Society of England at their Show at Carlisle, in 1855. Obtained a Premium at the Highland Agricultural Society's Show at Inverness, in 1856.

This Machine is drawn by one horse, and used for cutting and distributing Turnips or other Roots to Sheep or Cattle on Grass Land, &c.

This Machine consists of an ordinary Farm-cart body of a light construction, calculated to hold 12 or 14 cwt. of Turnips, with an iron grated bottom, to allow sand and dirt to fall through. The wheels are cast-iron, and of smaller diameter than the ordinary cart wheels. Upon the axle are fixed two of Gardner's Turnip-cutting Cylinders, which work in cast-iron cases attached to the bottom of the cart. These Cylinders are brought into action or disconnected by a clutch and lever acting on the left wheel of the Machine. Price, £10. Side Boards to increase the size of the Cart, 12s. extra.

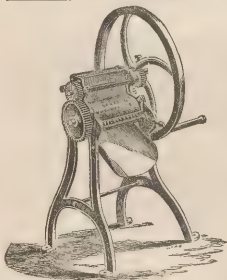
PATENT CART TURNIP-CUTTING MACHINE, No. 2.



This Machine, in its cutting and general principle is similar to No. 1. It is mounted upon wood wheels 4ft. 4in. diameter, with broad tyres, having the cylinders on a separate axle, worked by toothed wheels from one of the cart wheels; and in addition to a grated bottom, has a lower moveable bottom, so that it may be used for distributing the cut Turnips on Grass Lands or retaining them, so that they may be put into troughs. Price, £16.

PATENT CART TURNIP-CUTTING MACHINE, No. 3.

This Machine is the same as the preceding (No. 2.) but without the under box. It is for distributing the cut Turnips on Grass Lands, but it is often used for other agricultural purposes. Price, £14 10s.



OIL-CAKE MILL.

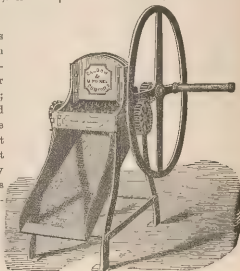
This is an indispensable article to the farmer and stock-feeder. The annexed cut shews one of a new and complete construction. It is capable of breaking any of the ordinary cake used for feeding, not exceeding 12 inches wide nor $1\frac{1}{2}$ inch in thickness. It is arranged with a Double Eccentric, to which a Handle is attached, working on a segmental piece, with numerous holes for adjusting the width of the rollers, and thus breaking cake of any size.

PRICES.

For Mark O C A,...£4 4s. | For Mark O C B,...£2 2s.

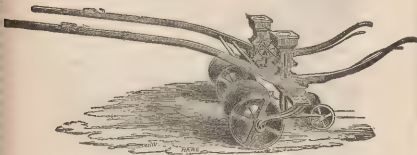
This Mill has double rollers, with set screws for shifting, to break fine or coarse as required; also, a perforated screw to separate the very fine or dust from the other. It has been recently improved, and is giving great satisfaction.

Price...£3 15s.



TURNIP SOWING MACHINE,

REGISTERED BALANCE DRILL,



Obtained the first Prize at the Royal Dublin Society's Show in
April, 1856, £5.

Do.

Do.

Do.

April, 1857, £8

This Machine sows two rows at a time, and is so constructed and balanced that it works on its two large coved rollers, which press upon the sides of the furrow, keeping it in proper shape, causing little or no pressure at the top. From the construction of the Swing Frame and small coved Seed Roller, regularity in depth of sowing is obtained at pleasure by the lowering or raising of the Seed Coulter.

The Machine has double cast-iron Seed Boxes, the upper holding the supply of seed, and allowing it to pass to and fill the under box to the proper depth of the Seed Wheel acting on it, so as to give an uniform pressure on the seed when sowing, independent of the quantities in the upper box, and preventing its being injured by too large a quantity ever being in the Working Box. The quantity sown is regulated at pleasure by the small Thumb Slider on the side of the box facing the person working the drill—and the seed can be seen falling into the hopper of the conducting pipe, and also into the furrow. There is a small projection on the one side of the box, with plug screw, by unscrewing which the remainder of the seed can be removed when done sowing, or for changing at any time, without undoing the boxes. Price £8.

PLAIN FIELD ROLLERS.



These Rollers are constructed with two cylinders, which facilitate their operation, and render them very easy to turn in the field.

SIZES AND PRICES.

| Diameter. | Price of 6 feet long. | Price of 7 feet long. |
|---------------------------------|-----------------------|-----------------------|
| 14 inches... .. | £8 5 0 | £8 17 6 |
| 16 " | 8 10 0 | 9 2 6 |
| 18 " | 9 5 0 | 10 2 6 |
| 20 " | 10 0 0 | 11 0 0 |
| 22 " ... .. | ... .. | 13 10 0 |
| 24 " ... .. | ... .. | 15 0 0 |
| 26 " ... .. | ... .. | 16 10 0 |
| 30 " by 4 feet, in one cylinder | ... .. | 15 10 0 |

WROUGHT IRON FIELD ROLLERS.

To meet the wishes of those Agriculturists who consider Cast Iron Rollers too heavy for some purposes. Rollers are frequently made of Boiler Plates, which are strong, light, and durable; the diameter being large, they are easy of draught.

P R I C E S.

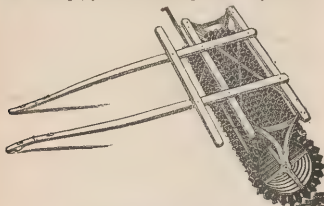
| | |
|---|-----|
| 36 inch diameter by 6 feet, with Wood Shafts..... | £10 |
| 36 " " 7 " " " | 11 |
| 48 " " 6 " " " | 12 |
| 48 " " 7 " " " | 13 |

LAND PRESSER ROLLER.

This Implement, while it presses and rolls the Land, at same time forms a narrow rut into which the seed falls, causing it to come up in parallel rows as if drilled, and in many districts it is superseding the use of the Drill. It is also very effective in destroying wire-worm. Price, with Wheel and 2 Pressers, £7; Extra Pressers, 16s. 6d. each.

CROSSKILL'S PATENT PRIZE ROLLER,

Awarded the "Council Great Medal," at the Great Exhibition; the Special Gold Medal, Thirty Sovereigns and Silver Medal, by the Royal Society of England; Twenty Sovereigns and Two Silver Medals, by the Royal Society of Ireland, Eight Sovereigns and Silver Medal, by the Highland and Agricultural Society of Scotland, and Four Silver Medals and Fifteen Sovereigns, by the Great Yorkshire Agricultural Society.

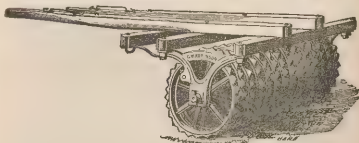


This Roller consists of cast metal discs or roller parts, placed loosely upon a round axle, so as to revolve independently of each other. The outer surface of each roller part is serrated, and has a series of sideway projecting teeth, which act perpendicularly in breaking clods. Each alternate ring is made larger in the eye, and, in revolving, causes an up-and-down motion along the entire surface of the roller, thereby increasing its power and effecting the best means of self-cleansing.

| | | | |
|--|-----|----|---|
| 6 feet 6 inches wide, 30 inches diameter | £19 | 0 | 0 |
| 6 feet 0, " " " " " | 17 | 10 | 0 |
| 5 feet 6 " " " " " | 16 | 0 | 0 |
| 5 feet 0 " " " " " | 14 | 10 | 0 |

Travelling wheels, £2 extra.

ROBINSON'S PATENT IMPROVED CLOD-CRUSHING ROLLER.



Which embodies some important improvements not found in any other Clod-Crusher yet before the public. At a meeting of the Highland and Agricultural Society of Scotland, held at Aberdeen in September last, this Roller was awarded a Special Prize, consisting of Silver Medal and a sum of Money. It has also carried off First Class Prizes at the Grantham, Driffeld, and other agricultural shows last year. Price £16 10s.

It has now been extensively used for the last eighteen months, and a list of testimonials may be had on application.

NORWEGIAN HARROW.

This is a valuable Implement for loosening and pulverizing land. Its efficiency has been greatly increased by lengthening the teeth of the rowels or tines, which can be raised or depressed at pleasure by means of a screw working on a quadrant, under command of the driver following the Implement.

PRICE.

| | | | |
|---|---------|-----|----------|
| With 3 rows of tines 4 ft. 6 in. wide... | ... | ... | £15 15 0 |
| " 2 rows of tines 4 ft. 6 in. wide and lever handle | 10 10 0 | | |

J. CARTWRIGHT'S PATENT CHAIN HARROW.

J. B. has now reduced the price of this valuable Implement to the following low quotations:—

| | Feet. | in. | | Feet. | in. | |
|---------------------|-------|-----|----|-------|-----|---------|
| For One horse | 5 | 0 | by | 7 | 6 | £2 15 0 |
| " Two do. | 6 | 9 | by | 7 | 6 | 3 10 0 |
| " Two do. | 7 | 6 | by | 7 | 6 | 4 0 0 |
| " Two do. | 8 | 6 | by | 8 | 6 | 4 10 0 |

WM. DRAY & CO'S PATENT PRIZE CHAMPION REAPER.



Wm. Dray & Co.'s Patent Prize Hussey Reaping Machine, with all the patented improvements, for which the Royal Agricultural Society of England, and many others, have awarded their prizes.

PRICES.

| | | | | | | | |
|-----------------------------|-----|-----|-----|-----|-----|---|---|
| Machine, complete | ... | ... | ... | ... | £25 | 0 | 0 |
| Extra for New Dividing Iron | ... | ... | ... | ... | 1 | 1 | 0 |

Parties near Liverpool ordering Machines save carriage from London. The same applies when wanted for shipment to Ireland or elsewhere.

BURGESS & KEY'S PRIZE REAPING MACHINES.



Burgess & Key's extensive Manufactory is wholly occupied in the manufacture of Reaping Machines, upon which they have concentrated their efforts since the year 1851; their practical experience enables them to produce a Reaping Machine which can be depended on by the Farmer.

Owing to the excessive demand for last season, many orders were left unexecuted. It is therefore earnestly requested that orders for next season be sent as soon as possible, otherwise they cannot guarantee to deliver in time.

Price £42 10s., net Cash at the Works, in London, complete, with Conical Screw Divider for long grain. Without the Conical Screw, £40. Extra Knife, £1 5s. If other extras are supplied, they are charged for. A man sent to start the machine, if required, on payment of his expenses.

The following *duplicate wearing parts, &c.*, are recommended in all cases, but especially when the machines are *shipped to distant countries* :—

| | | | |
|---|----|----|---|
| *Cutting Apparatus, complete | £2 | 2 | 0 |
| 12 loose Blades and 24 Rivets..... | 0 | 12 | 0 |
| 4 Knife Guides and Rivets | 0 | 10 | 6 |
| 1 Crank Bearing and Cap, fitted complete..... | 0 | 10 | 6 |
| 2 Bolts and Nuts for fixing ditto..... | 0 | 1 | 0 |

PRICES—CONTINUED.

| | |
|--|-----------------|
| 1 Bevel Pinion | 0 6 6 |
| 1 Spur Pinion | 0 6 6 |
| 2 Caps for Bearings of Bevel Wheel Shaft, and 4 Bolts & Nuts | 0 7 6 |
| 6 Long Bolts and Nuts, various | 0 3 6 |
| 1 Screw Spanner | 3s. 6d to 0 6 0 |
| 1 Oil Can..... | 0 1 6 |
| Collecting Rake..... | 0 5 6 |
| Gathering Forks | 0 7 0 |

* In case of accident in the field, this part can be at once replaced, and the reaping proceeded with, while that removed from the Machine is being repaired.

HOWARD'S PATENT PRIZE PLOUGHS.



These Ploughs have justly obtained a celebrity, which entitles them to the foremost rank in this class of Implements. The Manufacturers having for many years made it their study to attain the following objects, viz:—

1.—To make a Plough that will cut and turn the work in the best manner, and suitable to the greatest variety of soil.

2.—To obtain a form, the lightest in draught, and that will work the cleanest on sticky soils.

3.—To substitute wrought-iron for cast wherever practicable, so as to render every part strong and durable, without unnecessary weight.

4.—To make every part free from complication, and to fit those parts subject to wear or breakage in the most simple manner, so that an ordinary ploughman shall have no difficulty in replacing them when in the field.

5.—To make the Plough than can be kept in order at the least expense, to which end J. & F. H. have paid great attention to the quality of their shares and other wearing parts.

For some years past they have made a number of experi-

ments with various kinds of iron, with a view to test the strength and wearing qualities of the same, believing that unless they produced better castings than local founders, they could not expect to supply those who live at a great distance from their manufactory. Their New Patent Shares (which are marked Howard's New Patent Chill), will be found much harder, and of greater uniformity of temper, they are also cut cleaner and thinner on the cutting edge, as well as being much stronger than those made by the usual process.

The *wrought-iron* used in the construction of J. & F. Howards' Implements is also of the best and most expensive description. In proof of their superiority, it need only be mentioned, that since 1841 they have received *Thirteen First Prizes* from the Royal Agricultural Society of England, for the best Ploughs, of which since 1851 they have manufactured **40,000**.

From arrangements recently entered into with the Manufacturers, J. B. can supply these Implements at the following reduced prices, delivered at Liverpool:—

| | | | |
|----------------------------|----|-----|-----|
| Patent Iron Plough, mark P | £4 | 2s. | 6d. |
| Do. do. PP | £4 | 7s. | 6d. |
| Steam Coulters ... each | £0 | 5s. | 6d. |

Howard's Subsoil Body, price £1 can be attached to either of Ploughs,—the ordinary body being removed.

SCOTCH PLOWS.

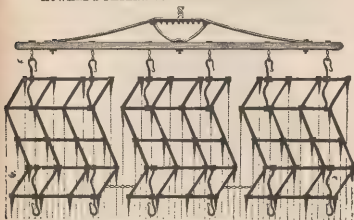
The character of these Implements is well established, while the advanced and advancing state of Agriculture is ever leading to improvements. The merits of those made by KIRKWOOD,—WILKIE,—TENANT,—KEMP & Co., and other Manufacturers, are well known. Prices according to size, £2 10s. to £4 4s.

EARTH DRILLING OR POTATOE PLOW,

FOR DRILLING AND EARTHING-UP TURNIPS, POTATOES, MANGEL WURZEL, &c., &c.

They are made to expand and contract so as to suit various widths of Drills. Price, £3 3s. to £3 15s.

HOWARD'S PATENT FOUR-BEAM IRON HARROWS.



Her Majesty's Royal Letters Patent have been obtained for improvements in the manufacture of these Harrows. The teeth are fitted in the frames in a simple and secure manner, and by means of a stop or guard, the nuts are prevented from shaking loose, and the teeth are so placed that each cuts a separate break at equal distances.

PRICES.

A set of Three Four-Beam Harrows, with whippetree, recommended as general Seed Harrows, size $9\frac{1}{2}$ feet wide, marked No. 12. £3 10s.

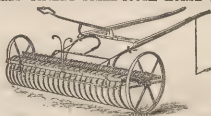
A set of Three Four-Beam Harrows, with whippetree, adapted for 3 horses, but may be wrought with a pair, size 10 feet wide, marked No. 11. £4

If with Patent Joints, 6s. per set extra.

TENANT'S PATENT SELF-CLEANING GRUBBER.

This is an efficient implement for cleaning lands under tillage from couch grass and other weeds; the curvature of its teeth being so formed as to bring to the surface all weeds and vegetable rubbish. Price (including the latest improvements), with five tines, £5.

HOWARDS' PATENT STEEL-TOOTH HORSE RAKE.



The THREE FIRST PRIZES last offered by the Royal Agricultural Society of England for Horse Rakes, were awarded to this Implement.

It also received the GOLD MEDAL OF HONOUR at the Paris Universal Exhibition, 1855, and a Prize and Medal at the Paris Universal Exhibition, 1856.

This Implement is intended for raking hay, corn, stubbles, or twitch grass, also for dragging meadows after a flood, and raking in clover and grass seeds in the spring. An important alteration has lately been introduced -formerly the raising bar was placed under the teeth, which was an obstruction in filling as well as emptying the rake, but now this is avoided by placing the raising bar above the teeth: this arrangement also gives the teeth a perfectly independent action. The teeth are made of steel instead of iron; they are consequently much lighter as well as stronger, not liable to pull straight, nor get out of shape, will wear much longer, and on account of their lightness, the power required to raise them is considerably lessened. The shaft irons are furnished with a joint and quadrant, by which the teeth may be readily altered, so as to rake upon their points, or set more or less off the ground. This method is to prevent the rake collecting the soil and rubbish with the corn, an objection frequently raised against the use of horse rakes.

P R I C E S.

| | |
|---|---------|
| Price of small size, marked A, with 24 iron teeth (extreme width 7½ feet) | 7 10 0 |
| Ditto, with steel teeth..... | 8 0 0 |
| Price of large size, marked B, with 28 iron teeth (extreme width 8½ feet) | 8 0 0 |
| Ditto, with steel teeth..... | 8 10 0 |
| Price of extra large size, marked C, with 24 steel teeth (extreme width 8½ feet)..... | 10 10 0 |
| A set of 15 Prongs, to attach to the above when used as weed extirpators..... | 1 10 0 |

BY ROYAL LETTERS PATENT.
JAMES' PRIZE LIQUID MANURE DISTRIBUTOR OR
WATER CART.



The advance of science having so exhibited to Agriculturists the superior advantage of using LIQUID MANURE, as to induce its almost general adoption, a great want was felt of a Distributor, so constructed, as to answer the purpose of equally distributing any quantity without being liable to choke up, and thus hinder the progress of the work, and waste the time of the workmen, and yet produced at a price alike available to the small Farmer or Gardener as to the more wealthy and extensive Cultivator.

I. JAMES warrants his DISTRIBUTOR to supply the desiderata so long felt. Its superiority consists in possessing the following advantages:—

1.—It is so arranged as to prevent the possibility of ever choking up.

2.—The Liquid is forced through the Distributor so as to scatter any quantity on the Land, in a copious shower, from 10 to 15 feet wide (according to the size), which saves a great amount of time and labour.

3.—It has waterproof joints, so that the Liquid may be carted to any distance without wasting it.

4.—It will work equally well on hilly as on level land, without any alteration.

5.—It can be advantageously adapted for the distribution of GUANO, &c., on either Drilled Crops or Pasture Land.

6.—It is so constructed as to be thoroughly adapted for

Watering Streets, or for carting large quantities of Water for any purpose required.

7.—It works so simply that even a boy can superintend it.

PRICES.

270 gallons, suitable for working by horse:—Price, £25 10s.; Weight of Cart, $8\frac{1}{2}$ cwt.; Weight of Water, $21\frac{1}{2}$ cwt.; Width of Tire, 4 in.

170 gallons, suitable for horse 14 hands high:—Price, £21 10s.; Weight of Cart, $6\frac{1}{2}$ cwt.; Weight of Water, $18\frac{1}{2}$ cwt.; Width of Tire, 3 in.

100 gallons, suitable for pony 13 hands high:—Price, £17 10s.; Weight of Cart, 4 cwt.; Weight of Water, 9 cwt.; Width of Tire, $2\frac{1}{2}$ in.

70 gallons, suitable for pony 12 hands high:—Price, £14 10s.; Weight of Cart, $3\frac{1}{2}$ cwt.; Weight of Water, 6 cwt.; Width of Tire, $2\frac{1}{2}$ in.

40 gallons, suitable for working by a man:—Price, £11 10s.; Weight of Cart, $2\frac{1}{2}$ cwt.; Weight of Water, $3\frac{1}{2}$ cwt.; Width of Tire, 2 in.

If with $1\frac{1}{2}$ in. Tar for drawing off water, £1 10s. extra.

IMPROVED LIQUID MANURE PUMPS,

WITH PATENT BUCKET AND SUCKER, NOT LIABLE TO CHOKE.

Warner's Improved Liquid Manure or general Portable Pump, $4\frac{1}{2}$ in. barrel, with Legs, £3 7s.

Warner's Improved Liquid Manure Pump, attached to Cart, £3 3s.

$1\frac{1}{2}$ inch Gutta Percha Suction Pipe, 2s. 6d. per foot.

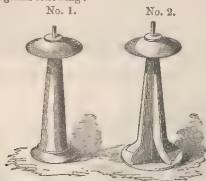
LIQUID MANURE PUMPS,

FOR STEAM POWER.

These Pumps are adapted for irrigation or for pumping Liquid Manure in large quantities. They are intended to be worked by steam power, and are capable of discharging 150 gallons per minute. They require no intermediate machinery, but may be worked direct by a belt from a pulley fixed on the fly-wheel shaft of the engine. The whole is fixed upon a strong iron frame, supported on cast iron standards. They are fitted with gutta percha ball valves, and the glands are bushed with gun-metal. An air vessel insures a continuous discharge. Price £50.

CORN RICK STANDS AND PILLARS.

There is no article in connection with Farm Yard economy of greater value to the agriculturist than Corn Rick Stands of proper construction. These are frequently made of iron, prices of which can be had on application; but as most Proprietors and Farmers have quantities of timber about them suitable for making the stand frames of, J. B. has brought out Cast Iron Pillars and Caps of suitable construction, height, and strength, as shewn by the diagrams following:



The uncertainty of the weather in this country causes much anxiety to the agriculturist during harvest, and any article which will enable him to secure his grain at an early period after cutting must be a great boon. These and other advantages which may be classed as follows are secured by the use of these Pillars and Stands:

1st.—*Early Stacking is secured*, as by the ventilation effected the stacks are not liable to heat, the fear of which causes farmers to leave their crops exposed to the weather for days, and in this uncertain climate even one day's delay often causes irreparable loss.

2nd.—*Thorough ventilation is insured throughout the Stack*, by which the quality of the grain is improved, and the farmer thereby enabled to bring it earlier to market.

3rd.—*Perfect preservation from the ravages of vermin afforded*. In many cases these are so serious that the loss occasioned in one year would more than pay for the Stand, while from dread of these farmers are compelled to thrash out grain which they would otherwise leave in the straw.

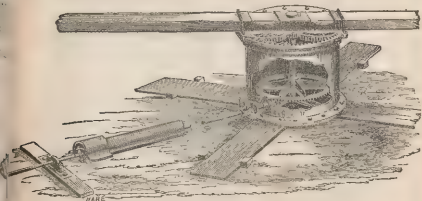
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PRICES.

No. 1—22 inches high...3s. 0d. | No. 2—24 inches high...3s. 6d.
The number required for each Stack may be less or more, but the following
are considered good proportions:—

| For Ricks 10 feet diameter, 7 Pillars, | | Pattern No. 1. | |
|--|----|----------------|-----|
| Do. | 12 | do. | 9 |
| Do. | 14 | do. | 11 |
| Do. | 16 | do. | 13 |
| Do. | 18 | do. | 15 |
| Do. | 20 | do. | 17 |
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The Horse Gear Machinery as here shown is enclosed within a cast iron cylinder, with a moveable cap, revolving when at work on its upper surface. On the inner edge of the cylinder is a set of cogs, which work into three loose wheels, and communicate the motion to a pinion on an upright shaft in the centre, on the bottom of which is fixed a bevel wheel working into a pinion, which communicates the power to the outside, giving thirty-three revolutions for each circuit of the horse, so that if the horse travels round three times a minute, ninety-nine revolutions are given to the lay shaft.



PRICES.

| | |
|-------------------------|----------|
| One Horse power | £11 0 0 |
| Two Horse-power | £12 10 0 |
| Three Horse-power | £17 0 0 |
| Four Horse-power..... | £21 0 0 |
| Five Horse-power..... | £24 0 0 |
| Six Horse-power | £27 0 0 |

Including all the iron-work, and jointed Spindle, and cover to Horse Walk, but not the Whippletrees and Draft Poles, which are 15s. each extra.

The performance of the two-horse Machines is as follows:

| | |
|-----------------------------------|-----------------------------|
| Wheat (of an average yield) | from 10 to 14 Qrs. per day. |
| Barley do. | from 12 to 15 Qrs. per day. |
| Oats do. | from 20 to 30 Qrs. per day. |

ENGINES, MACHINERY, &c.

IN submitting the following designs of Engines, &c., J. B. begs to say that he can warrant them all of the best quality, being from the works of one of the most eminent manufacturers in Scotland, whose character for first-rate workmanship is well-known among Agriculturists, Manufacturers, Merchants, Contractors, and others.

FIG. 1.

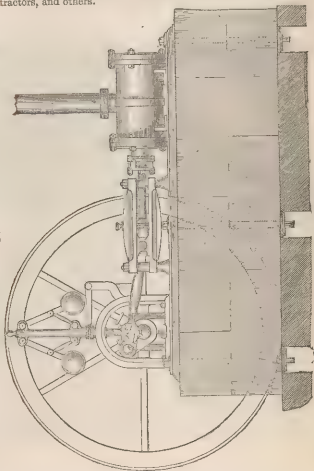


FIG. 2.

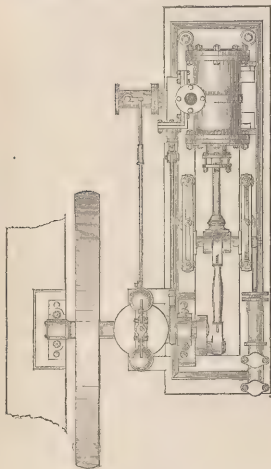


Fig. 2 represents plan, and Fig. 1 the elevation of these Horizontal Engines.

SPECIFICATION OF HORIZONTAL ENGINES.

Each Engine is High Pressure, Horizontal Movement, and Polished, with Governor, throttle Valve, Force Pump, Steam Cock, Wall Plate, Pillow Block, Crank Shaft of Best Malleable Iron, turned throughout, Connecting Rod, do. do., Screw Ends,

and plates for holding down bolts; Boilers of bulged or hemispherical ends made of the best boiler plate.

Mountings for each, consisting of Safety and Retention Valves, Water Indicator, Furnace Door, Bars and Bearers, Damper and Frame with Pulley chain and Counter-balance Weight—12 feet of Steam Pipe, and 9 feet of Exhaust Pipe.

The following Scales of Prices refer to each Engine complete, viz., Engine, Boiler, and with Mountings and connections as above :—

I.—SCALE OF PRICES.

4 Horse power Engine, with large Boiler and Connections as above,—
£20 0 0 per Horse power

| | | | | | |
|----|-----|-----|---------------|-----|---------------|
| 6 | Do. | do. | 18 6 8 | do. | £30 0 0 |
| 8 | Do. | do. | 18 0 0 | do. | 110 0 0 |
| 10 | Do. | do. | 17 0 0 | do. | 144 0 0 |
| 12 | Do. | do. | 16 10 0 | do. | 170 0 0 |
| 14 | Do. | do. | 16 0 0 | do. | 198 0 0 |
| 16 | Do. | do. | 15 10 0 | do. | 224 0 0 |
| 18 | Do. | do. | 15 15 6 | do. | 248 0 0 |
| 20 | Do. | do. | 15 0 0 | do. | 275 0 0 |
| 22 | Do. | do. | 15 0 0 | do. | 300 0 0 |
| 25 | Do. | do. | 15 0 0 | do. | 330 0 0 |

With Two Boilers.

| | | | | | |
|----|-----|-----|--------------|-----|---------------|
| 30 | Do. | do. | 15 0 0 | do. | £75 0 0 |
| 35 | Do. | do. | 14 0 0 | do. | 450 0 |
| 40 | Do. | do. | 13 0 0 | do. | 490 0 0 |
| 45 | Do. | do. | 13 0 0 | do. | 520 0 0 |
| 50 | Do. | do. | 12 0 0 | do. | 585 0 |
| | | | | do. | 650 0 0 |

II.—SCALE OF PRICES of the above Engines, with Flued Boilers, having Malleable Iron Furnace, Doors and Frames, and with Glass Water Indicators, and Brass Gauge Cocks with connections as above, 30s. per Horse power extra, as under :—

8 Horse power Engine, with large Boiler and connections as above,—
£19 10 0 per Horse power

| | | | | | |
|----|-----|-----|---------------|-----|----------------|
| 10 | Do. | do. | 18 10 0 | do. | £156 0 0 |
| 12 | Do. | do. | 18 0 0 | do. | 185 0 0 |
| 14 | Do. | do. | 17 10 0 | do. | 216 0 0 |
| 16 | Do. | do. | 17 0 0 | do. | 245 0 0 |
| 18 | Do. | do. | 16 15 0 | do. | 272 0 0 |
| 20 | Do. | do. | 16 10 0 | do. | 302 0 0 |
| 22 | Do. | do. | 16 10 0 | do. | 330 0 0 |
| 25 | Do. | do. | 16 10 0 | do. | 363 0 0 |
| 30 | Do. | do. | 16 10 0 | do. | 412 10 0 |
| 35 | Do. | do. | 16 10 0 | do. | 495 0 0 |
| 40 | Do. | do. | 15 10 0 | do. | 542 10 0 |
| 45 | Do. | do. | 14 10 0 | do. | 580 0 0 |
| 50 | Do. | do. | 14 10 0 | do. | 652 10 0 |
| | | | | do. | 725 0 0 |

III.—SCALE OF PRICES of the above Engines, with Improved Butt or upright Tubular Boilers, with Chimney attached, requiring no building. £2 per Horse power extra, as under:—

| 4 Horse power Engine, with Boilers and Connections as above,— | | | | £22 0 0 per Horse power, | | | |
|---|-----|-----|---------------|--------------------------------|-------|-----|-----|
| 6 | Do. | do. | 20 6 8 | do. | ..... | £83 | 0 0 |
| 8 | Do. | do. | 20 0 0 | do. | ..... | 122 | 0 0 |
| 10 | Do. | do. | 19 0 0 | do. | ..... | 160 | 0 0 |
| 12 | Do. | do. | 18 10 0 | do. | ..... | 190 | 0 0 |
| 14 | Do. | do. | 18 0 0 | do. | ..... | 222 | 0 0 |
| 16 | Do. | do. | 17 10 0 | do. | ..... | 253 | 0 0 |
| 18 | Do. | do. | 17 5 6 | do. | ..... | 290 | 0 0 |
| 20 | Do. | do. | 17 0 0 | do. | ..... | 311 | 0 0 |
| 22 | Do. | do. | 17 0 0 | do. | ..... | 340 | 0 0 |
| 25 | Do. | do. | 17 0 0 | do. | ..... | 374 | 0 0 |
| 30 | Do. | do. | 17 0 0 | do. | ..... | 426 | 0 0 |
| 35 | Do. | do. | 16 0 0 | do. | ..... | 510 | 0 0 |
| 40 | Do. | do. | 15 0 0 | do. | ..... | 560 | 0 0 |
| 45 | Do. | do. | 15 0 0 | do. | ..... | 600 | 0 0 |
| 60 | Do. | do. | 15 0 0 | do. | ..... | 675 | 0 0 |
| | | | | | | 750 | 0 0 |

Duplicates of the Working parts of the above Engines when required.

J. B. begs to call attention to his Cast Iron Foundation, formed of plates similar to an ordinary tank, the front one being panelled or ornamented. The inside of this foundation or tank is filled with heavy rubbish of any description, to give it solidity, while the sole-plate of the Engine is bolted to flanges formed on the top for this purpose. For the Quartz Mining Districts, in our Colonies, for Contractors, &c., this portable foundation will be found a great desideratum.

Each Engine for Exportation should be accompanied by the above Foundation, a Malleable Iron Chimney, and Improved Water Heater, which are so constructed as to pack into little room for shipment.

Engines above 10 Horse power require to be taken to pieces on account of their weight—each part is carefully marked and numbered, however, and a reference to the plan accompanying each Engine, will show how they are put together.

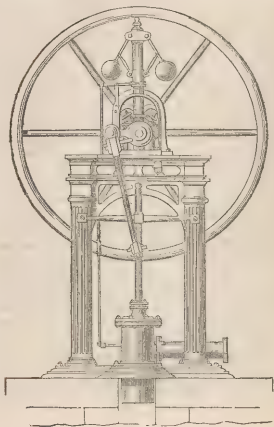
PRICES OF IMPROVED IRON FOUNDATIONS.

| | | | |
|----------------------------|-------|----------------------------|-------|
| 4 Horse Power Engine | £6 0 | 14 Horse Power Engine..... | £15 0 |
| 6 Do. do. | 6 10 | 16 Do. do. | 19 10 |
| 8 Do. do. | 8 15 | 18 Do. do. | 23 10 |
| 10 Do. do. | 11 5 | 20 Do. do. | 33 0 |
| 12 Do. do. | 13 10 | | |

IMPROVED WATER HEATING CISTERN for STEAM BOILERS.

The supply of cold water is admitted into the top of the cistern and flows over the shelves, or plates, in a thin stream till it reaches the bottom. The exhaust or waste steam is admitted at the bottom of the cistern, and spreading underneath each shelf or plate, in its passage upwards to the exit pipe at the top, effectually raises the water (before it reaches the bottom of the cistern to the boiling point), whence it passes into the boiler, thus effecting a saving of at least a third of fuel. Price, £11 10s.

TEN HORSE POWER CRANK OVER-HEAD STEAM ENGINE,
 SAME PRICE AS HORIZONTAL.



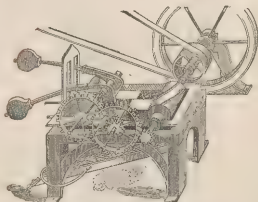
CIRCULAR SAW MILL BENCH,

With Parallel Guide, Traversing Frame, Fast and Loose Pulleys, Circular Saw complete.



Price from £20 to £55, according to size.

To Landed Proprietors who have much Timber on their estates, this machine is not only useful in a high degree, but quite indispensable. Estimates for Upright Saw Frames on application.

REA AND BURNS'
IMPROVED PATENT BONE RASPING MILLS,

Of all sizes, suitable for Manufacturers and Farmers, are so constructed as to pass iron or other hard substances (getting in with the Bones by accident) without breaking the parts or stopping the Machines when in full work. They grind at one operation, One Ton per Horse power per day, of the largest Bone and Horn, giving 45 per cent. dust that will pass a $\frac{1}{2}$ inch sieve. The rough Bones are thrown into the hopper, and falling on to the cutting bed, are pressed against the cutters, which are fixed in a revolving cylinder in rapid motion; they are thereby effectually rasped and reduced.

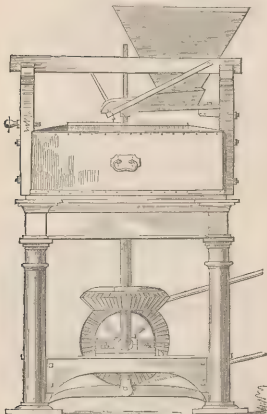
Attention is more especially called to the arrangement of the Cutters or Rasps, which enables a labourer to disengage them from the cylinder by means of a screw-key, and when ground, which is done upon a common grindstone, to replace them in thorough working order. By this simple arrangement a saving of one-third of the power is effected; in other words, an engine of six-horse power will do the work of nine. The reason is simple: the cutters being kept sharp, cut freely; but when dull, they crush and become a break to the engine, and hence the waste of power so common in Mills of other construction. This Mill can be confidently recommended as totally

free from these defects, and may be worked with great advantage by a common labourer.

PRICES.

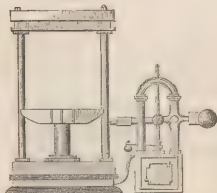
| | | | | |
|---------------|-------|-----|----|---|
| 1 Horse power | ..... | £27 | 10 | 0 |
| 2 Do. | ..... | 52 | 10 | 0 |
| 4 Do. | ..... | 72 | 10 | 0 |
| 6 Do. | ..... | 110 | 0 | 0 |
| 8 Do. | ..... | 150 | 0 | 0 |

PORTABLE CORN MILL,



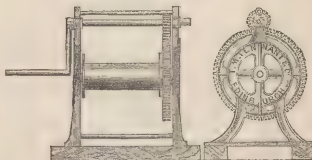
With FRENCH BURR STONES 3 feet diameter, suitable also for grinding a variety of substances. Price £45.

HYDRAULIC PRESSES,
For Packing Wool and other Goods.



Table, 2 feet 6 by 3 feet 3; Ram, 7 inches diameter; Cylinder, 12 inches diameter outside; $2\frac{1}{2}$ thick, 3 feet long; distance between fixed tables, 5 feet 6; will move up to 2 feet 6; 4 feet 8 when down; fitted with Double Pumps complete. Price £90. Larger sizes in proportion.

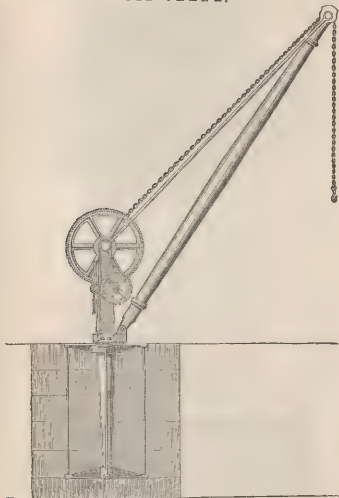
LIFTING CRABS.



| | |
|---------------------------------------|-------|
| Single Purchase Crab, to lift 3 tons, | £6 15 |
| Double do. do. 5 tons, | 9 15 |

Other sizes in proportion.

JIB CRANE.

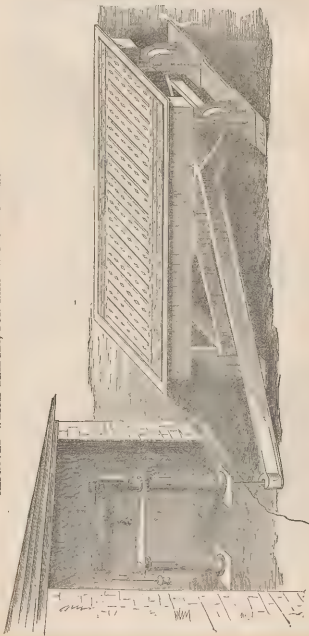


Jib 20 feet long, made of Red Pine, tested to Three Tons.
Price, with Chain and Shackles complete, £55, larger sizes in proportion.

PORTABLE CRANES, on Platform with Wheels.

Prices on application.

IMPROVED WEIGH BRIDGES, FOR RAIL AND COMMON ROAD.



This is the general view of a Weigh Bridge fixed, (except Masonry Work for Curbing, &c.) The weight indicated on steelward is 1 ton; the remainder are loose weights placed upon the scale plate. On the upper steelward is a small house weight to indicate from 1lb. to 28lbs.; in the centre is the Balanced Ball, which is a possession of the man in charge, to prevent tampering with the precise balance of the machine. These machines are made to indicate from 1lb. to 4, 5, 7, 8, 10, 12, 15 and 20 tons and upwards. Prices per contract, according to size of platform, &c.

WEIGHING MACHINE FOR CARTS AND LIVE STOCK.



This Machine obtained the prize of the Highland Agricultural Society in 1848. Since which time it has been greatly improved and simplified, and is now so constructed that a farm labourer can fix it.

The box or frame-work, which is entire, needs only to be set level upon a substantial foundation. The levers can only be put together in the right way, the column carrying the Steelyard, being fit on with set screws, is immediately taken off and put on. It is fitted with an apparatus for disengaging or relieving the centres from friction when not in use, and is very easily worked and understood.

The whole construction of the Machine is such as to render it an acquisition to a farmer or stock feeder; or for general road purposes. It obtained the Collective Medal at the Manchester and Liverpool Society's Show, held at Liverpool, 1852; and also at the Manchester and Liverpool Society's Show, held at Warrington, 1853.

The size of the platform is 6 feet 2 inches, by 3 feet 1 inch, the smallest size prudent to make a Cart Machine, and will weigh from 1 lb. to 3 tons.

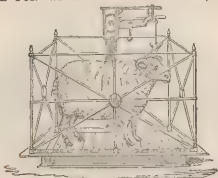
PRICE.

With Posts and Chains, ...£24 | Without Post and Chains, £22

The Posts and Chains are immediately removed at pleasure.

'96 JAMES BANKS, DERBY SQUARE, LIVERPOOL.

MACHINE FOR WEIGHING SHEEP, CALVES, PIGS, &c.

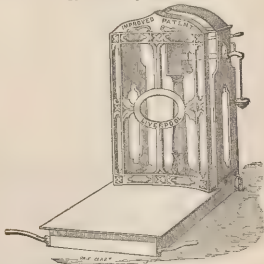


The Pen or Hurdle opens at each end so as to allow the animal to pass in and out without turning round. It is found to be a great acquisition to sheep feeders. Will weigh from $\frac{1}{2}$ lb. to 10 cwt. Price, 27 10s. Platform 4 feet, by 2 feet 8 inches.

SACK MACHINE.

For Farmers, Shopkeepers, Flour Dealers and Millers.

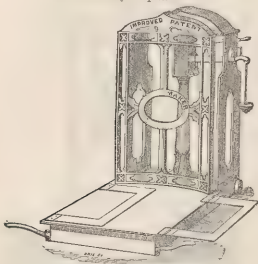
To WEIGH FROM $\frac{1}{2}$ LB. UPWARDS.



| SIZE OF TABLE | TO CARRY. | PRICE. |
|-----------------------------------|---------------------------------------|---------|
| 1 foot 4 in. by 1 foot 4 in. | from $\frac{1}{2}$ lb. to 3 cwt. | £3 14 0 |
| 1 foot 9 in. by 1 foot 4 in. | from $\frac{1}{2}$ lb. to 4 cwt. | £4 4 0 |
| 2 feet 1 in. by 2 feet | from $\frac{1}{2}$ lb. to 5 cwt. | £5 5 0 |

IMPROVED WEIGHING MACHINE.

For Weighing Sacks, Wool Packs, or any Bulky Goods requiring large Platform space.



Prices same as preceding Machine, with 20s. extra for Wings.

WEIGHING MACHINE.

FOR STEAMERS, COAL MERCHANTS, AND SHIPPERS.



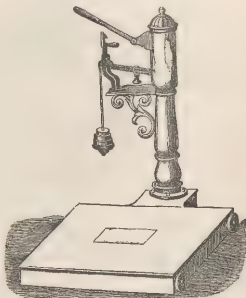
The Royal Agricultural Society of England awarded their Prize for this Machine.

PRICES.

| | |
|--|---------|
| To Weigh from $\frac{1}{2}$ lb. to 3 cwt. | £3 14 0 |
| Do. do. 4 cwt. | £4 4 0 |
| Do. do. 10 cwt. | £7 0 0 |
| Do. do. 20 cwt. | £9 0 0 |

Enamelled Plates, fitted to be used at pleasure, for Weighing fresh Provisions, or other goods, where perfect cleanliness is required, 10s. extra.

PLATFORM WEIGHING MACHINE.

For Shops, Warehouses, Wharfs, &c.

Known as Fairbank's Patent, with the most recent improvements. This Machine is well adapted for Railways, Carriers, Wharfingers, and general purposes.

PRICES.

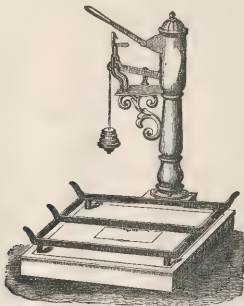
| SIZE OF PLATFORM. | | TO CARRY. | | PRICE. |
|-------------------|----------------------------|----------------------------------|---|------------------|
| 1 | feet 8 in. by 1 foot 8 in. | from $\frac{1}{2}$ lb. to 4 cwt. | | |
| 2 | " 2 " 2 " 0 " | " 5 " | " | £4 4 0 |
| 2 | " 1 " 2 " 2 " | " 7 " | " | £5 0 0 |
| 2 | " 2 " 2 " 4 " | " 10 " | " | £6 6 0 |
| 2 | " 4 " 2 " 7 " | " 15 " | " | £7 10 0 |
| 2 | " 8 " 2 " 7 " | " 20 " | " | £9 9 0 |
| 2 | " 8 " 3 " 0 " | " 22 " | " | £10 10 0 |
| 2 | " 8 " 3 " 0 " | " 25 " | " | £11 0 0 |
| 2 | " 8 " 3 " 6 " | " 32 " | " | (strong) £12 0 0 |
| 2 | " 8 " 3 " 8 " | " 42 " | " | £14 10 0 |
| 3 | " 8 " 3 " 8 " | " 42 " | " | £16 0 0 |

If fitted with wheels and axles they cost 5s. to 20s. extra for Machines up to 20 cwt., and 20s. to 40s. extra for the larger Machines.

FAIRBANK'S PATENT WEIGHING MACHINE.

FOR SINKING IN THE FLOOR.

*Or for Iron Merchants, with Cradle for Bars of Iron, which can be moved
at pleasure.*



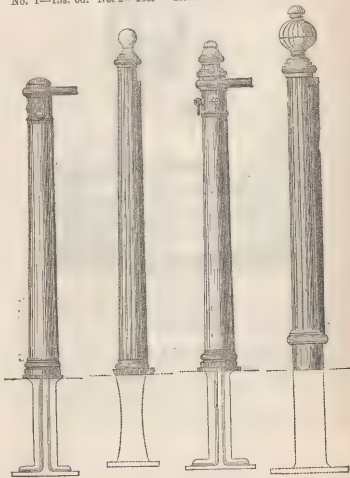
This Machine is made in various sizes, suitable for any requirements. Will weigh from $\frac{1}{4}$ lb. to 10, 15, 20, 25, 32, and 42 cwt. Used in Warehouses, Stores, &c.

Same Price as the foregoing, if with Cradle for weighing Iron, Timber, &c., 20s. to 40s. extra.

STALL DIVISIONS AND STABLE FITTINGS.

THE constant and increasing demand for Iron Stable Fittings has induced J. B. to add to, and improve the designs of these articles, and in submitting the following, he has confidence that they cannot be surpassed by any other house for workmanship, and that the prices will be found moderate.

No. 1—15s. 6d. No. 2—15s. No. 3—16s. 6d. No. 4—19s.



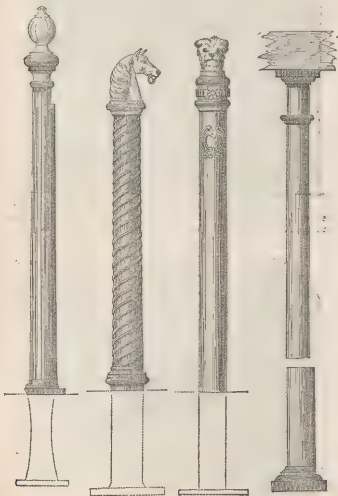
Stall divisions are generally made $9\frac{1}{2}$ feet long from Wall to Heel post, by $4\frac{1}{2}$ feet high, to rise of Ramp, and consist of Stall or Heel post, ramped top rail, and bottom sill, made to receive timber boarding, $1\frac{1}{2}$ to $2\frac{1}{4}$ inches thick. Price of posts to any of the accompanying designs (as under):—Ramp or top rail for $1\frac{1}{2}$ inch timber, 9s. 6d.; for 2 and $2\frac{1}{4}$ inch timber, 10s. 6d. and 12s. Sill or bottom rail for ditto, 5s. 6d., 6s., and 7s.

No. 5—17s.

No. 6—21s.

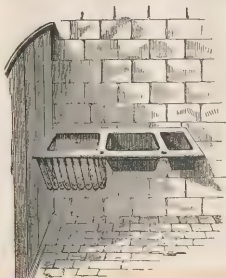
No. 7—20s.

No. 8—25s.





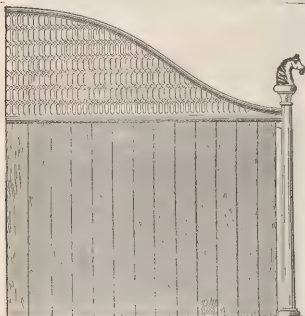
Ornamental Stall Division.—No. 1, 9 feet 6 by 4 feet 6, consists of a strong handsome Pillar, with ornamental Ramp, top rails and sill, also sill for bottom. Price, complete, £2 10s.



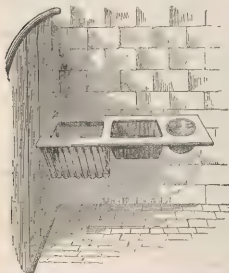
MANGER AND GRUEL OR WATER POT,

WITH WROUGHT IRON HAY RACK,
5 FEET 10 INCHES TO 6 FEET.

| | |
|----------------|---------|
| Plate ... | £1 12 6 |
| Galvanized ... | 2 17 6 |



No. 2.—This is the same size as No. 1, but a stronger and more ornamental Division, both as regards the Ramp and Post, and costs, with rail and sills. £3.



MANGER AND GRUEL OR WATER POT,

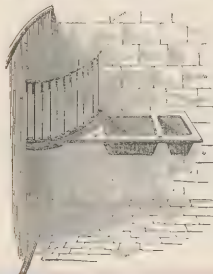
WITH WROUGHT IRON HAY RACK,

5 FEET 10 IN. TO 6 FEET.

| | | |
|---------------|-----|---------|
| Plain | ... | £1 12 6 |
| Galvanized... | ... | £2 17 6 |



No. 3.—This Division, also 9 feet 6 by 4 feet 6, is a highly ornamental design, and has a handsome massive Post; the cost, with rail and sills is £3 5s. 0d.

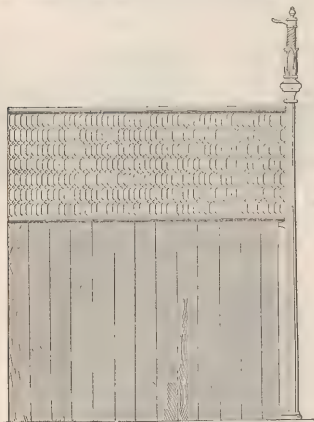


MANGER AND GRUEL OR WATER POT,

WITH WROUGHT IRON HAY RACK,

(New Pattern), 5 FEET 10 INCHES TO 6 FEET.

| | | |
|------------|-----|---------|
| Plain | ... | £1 15 0 |
| Galvanized | ... | 3 0 0 |



No. 4.—Shews the Division No. 2, adapted for a Loose Box. It costs, with rail and sills, £3 10s. If with pillar like No. 8, page 101, £4.

In fitting up Loose Boxes, the following extras are required, viz. :

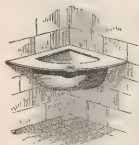
Extra post for door, according to pattern, 15s. to 25s. 01.

Open panel for do. do. 8s. to 12s.

Slip bolt, fastenings, hangings, &c., for door 15s.

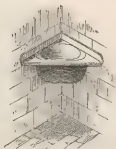
MANGERS FOR LOOSE BOXES.

No. 46



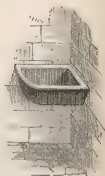
Plain.....£0 9 0
Galvanized 0 15 0

No. 47.



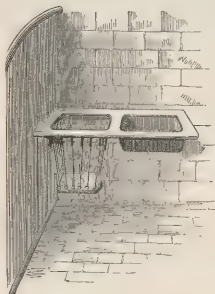
Plain.....£0 8 0
Galvanized 0 14 0

No. 48.



Plain.....£0 8 0
Galvanized 0 14 0

IMPROVED STALL-FITTING MANGER AND RACK,
WITH WROUGHT IRON BARS AND CLOSE BOTTOM.

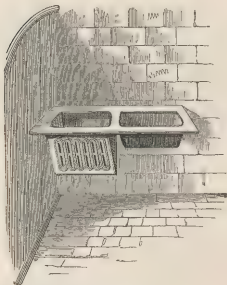


PRICE.

| | | |
|------------|--------|--------|
| | £1 8 6 | 2 10 0 |
| Plain ... | ... | ... |
| Galvanized | ... | ... |

MANGER AND HAY RACK,

ALL OF CAST IRON.



PRICE.

| | | | | |
|----------------|-----|-----|-----|--------|
| Plain... | ... | ... | ... | £1 6 0 |
| Galvanized ... | ... | ... | ... | 2 10 0 |

CORNER SWINGING MANGER,—No. 49.

This is so arranged that when in use it may be turned into a recess in the wall, thus preventing Horses under treatment from firing, &c., or medicine, rubbing themselves.

STRAIGHT SWING MANGER,—No. 50.

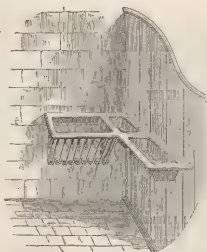
Arranged same as the preceding.

PRICE FOR EITHER.

| | | | | |
|----------------|-----|-----|-----|--------|
| Plain... | ... | ... | ... | £1 0 0 |
| Galvanized ... | ... | ... | ... | 2 0 0 |

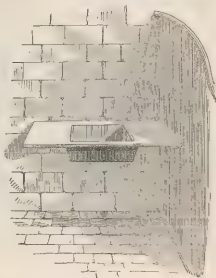
IMPROVED CORNER MANGER, WATER TROUGH & RACK,
WITH WROUGHT IRON BARS.

MANGER, 5 feet 6 in. to 6 feet wide, with opening
: of 2 feet 6 in.
Broad Flat Flange.



PRICE.

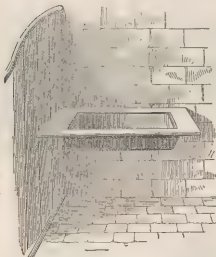
| | | | |
|------------|-----|-----|---------|
| Plain | ... | ... | £1 12 6 |
| Galvanized | ... | ... | 2 17 6 |



PRICE.

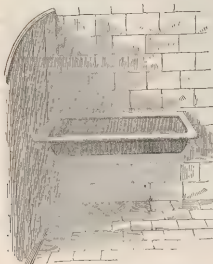
| | | | |
|------------|-----|-----|---------|
| Plain | ... | ... | £0 16 6 |
| Galvanized | ... | ... | 2 0 0 |

OBLONG MANGER—6 feet,
WITH OPENING OF 4 FT. 9 IN.



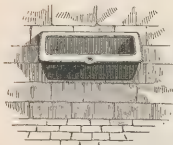
| PRICE. | |
|----------------|--------|
| Plain... | £1 5 6 |
| Galvanized ... | 2 15 0 |

OBLONG MANGER—6 feet 5 in.



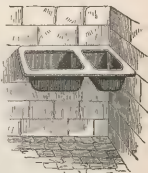
| PRICE. | |
|----------------|--------|
| Plain ... | £1 0 0 |
| Galvanized ... | 2 15 0 |

No. 51.



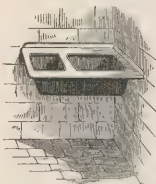
Plain..... £0 12 0
Galvanized 1 5 0

No. 52.



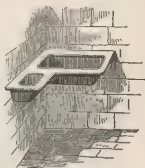
Plain..... £1 0 0
Galvanized 2 5 0

No. 53.



Plain..... £1 2 6
Galvanized 2 5 0

No. 54.



Plain£1 5 0
Galvanized 2 10 0

HAY RACKS OF WROUGHT OR CAST IRON.

| | Plain. | Galvanized. |
|-----------------------------------|---------|-------------|
| Circular, 33 and 36 inches | 8s. ... | 14s. |
| Corner, 32 inches... .. | 8s. ... | 14s. |

HARNESS ROOM FURNITURE.

| | | | | |
|--|-----|--------------|------------|------------|
| Saddle Bracket, No. 1, 20 by 20 inches | .. | ... | 4s. | 6d. |
| Ditto, No. 2, 11 by 10 do. | ... | ... | 2s. | 6d. |
| Ditto, Fox-head, 17 by 7 inches | .. | ... | 6s. | 0d. |
| Ditto, Lion-head, 15½ by 8 do. | ... | ... | 3s. | 6d. |
| Ditto, with bridle-hook, 12 by 12 in. | ... | ... | 1s. | 3d. |
| Double Bridle-hook | ... | ... | 2s. | 0d. |
| Ring for batting into wall "Lion-head" | ... | ... | 2s. | 6d. |
| Belt Weights | 9s. | Halter Balls | 4s. to 8s. | per dozen. |

SUNDRIES.

STABLE GUTTERING, in 6 feet lengths.

| | | | | |
|------------------|-----|-----|-----|---------------|
| 3½ inch diameter | ... | ... | 1s. | 3d. per foot. |
| 4 ditto | ... | ... | 1s. | 6d. " |
| 4½ ditto | ... | ... | 1s. | 8d. " |

HORSE or MARE POTS Trapped with Side Socket for Gutter.

| | | | | |
|---------------|-----|-----|-----|-------|
| 8 inch square | ... | ... | 4s. | each. |
| 9 ditto | ... | ... | 5s. | " |
| 10 ditto | ... | ... | 6s. | " |
| 12 ditto | ... | ... | 8s. | " |

IMPROVED GUTTERING, with loose covers for easy cleansing.

| | | | |
|--------------------------------------|-----|-----|----------------|
| 3½ inch diameter by 4 ft. 4 in. | ... | 8s. | 6d. per piece. |
| 3½ ditto by 5 ft. 4 in. | ... | 9s. | 6d. " |
| Angle Pieces for do., right and left | ... | 4s. | 0d. each. |
| T Pieces do., do., | ... | 5s. | 3d. " |

IMPROVED HORSE AND MARE POTS, with Socket to receive Guttering.

| | | | | |
|------------------|-----|-----|------|-----------|
| 12 inches square | ... | ... | 12s. | 6d. each. |
|------------------|-----|-----|------|-----------|

VENTILATORS, Round or Square.

| | | | | |
|-----------|-----|-----|-----|-----|
| 10 inches | ... | ... | 5s. | 0d. |
| 12 " | ... | ... | 6s. | 0d. |
| 14 " | ... | ... | 7s. | 6d. |

VENTILATORS, Oblong Air Brick with Slide ... 12s. 6d.

CATTLE TROUGHS.

These are made of various forms and sizes; those most approved of are the following, viz.:—



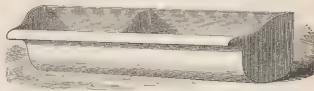
No. 1 is oblong, being made 2½, 3, 4½, and 6 feet long.
Price 13s. 6d., 15s., 22s. 6d., and 30s.



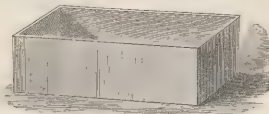
No. 2, for single Stalls, is 3 feet long by 10 inches wide at bottom, and 14 inches at top. Price 15s.



No. 3, for double Stalls, is 6 feet 10 inches long, by 10 inches at bottom and 14 inches at top. Price 27s. 6d.



No. 4, for double Stalls, is 6 feet 10 inches long, by 12 inches at bottom and 17 inches at top. Price 37s. 6d.



No. 5—Water Trough—is made 3 feet and 4 feet long. Prices 28s. and 35s.

PIG TROUGHS

Are now always made of Cast-Iron, as being the cleanest and cheapest materials for these; they are made in a variety of shapes as follows, viz.:—



No. 1. is an improved Round Bottom, with safety lip (to prevent the animals wasting their food) and wrought iron divisions, is made of the following sizes, viz.:—

10 inches wide by 2, 2½, 3, 3½, 4, 4½, 5, 5½, and 6 feet, 2s. 0d. per ft.
12 inches wide by 3, 4, 5, and 6 feet 2s. 3d. "



No. 2. Improved High Back Pig Trough, with wrought-iron divisions.

PRICES.

| | | | | | |
|-------------------------------|-----|-----|-----|------|-----|
| 2½ feet long by 8 inches wide | ... | ... | ... | 8s. | 6d. |
| 3 ditto " ditto | ... | ... | ... | 10s. | 6d. |
| 3½ ditto " ditto | ... | ... | ... | 12s. | 6d. |
| 4 ditto " ditto | ... | ... | ... | 14s. | 0d. |
| 5 ditto by 11 ditto | ... | ... | ... | 15s. | 6d. |
| 3½ ditto " ditto | ... | ... | ... | 17s. | 0d. |
| 4 ditto " ditto | ... | ... | ... | 18s. | 6d. |
| 5 ditto " ditto | ... | ... | ... | 22s. | 6d. |
| 6 ditto " ditto | ... | ... | ... | 27s. | 6d. |

No. 3. Improved Double Pig Troughs, with wrought-iron arched divisions.

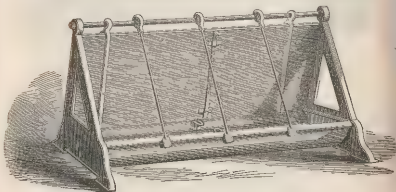


The advantage of these Troughs is that although the smallest size is only 2 feet 6 in. long by 10 inches wide, yet twelve pigs can feed at the same time without interfering with each other or wasting the food.

PRICES.

| | | | | | |
|--------------------------------|-----|-----|-----|------|-----|
| 2½ feet long by 10 inches wide | ... | ... | ... | 8s. | 6d. |
| 3 ditto " ditto | ... | ... | ... | 10s. | 6d. |
| 3 ditto by 12 ditto | ... | ... | ... | 12s. | 0d. |
| 3½ ditto " ditto | ... | ... | ... | 13s. | 6d. |
| 4 ditto " ditto | ... | ... | ... | 16s. | 0d. |
| 3 ditto by 15 ditto | ... | ... | ... | 13s. | 0d. |
| 3½ ditto " ditto | ... | ... | ... | 15s. | 0d. |
| 4 ditto " ditto | ... | ... | ... | 17s. | 6d. |

No. 4. Eglinton Pig Trough, with oscillating centre board, intended to be fixed in a wall, to allow pigs to feed on either side.



PRICES.

| | | | | | | | |
|-------------|-----|------|-----|-------------|-----|------|-----|
| 3 feet long | ... | 37s. | 0d. | 5 feet long | ... | 50s. | 0d. |
| 4 ditto | ... | 42s. | 6d. | 6 ditto | ... | 60s. | 0d. |

No. 5. Circular Pig Trough, with revolving divisions :—



PRICES.

| | | | | | |
|----|-----------------------------------|-----|-----|------|-----|
| 24 | Inches diameter, with 5 divisions | ... | ... | 10s. | 6d. |
| 24 | Ditto ditto, 7 ditto | ... | ... | 11s. | 0d. |
| 26 | Ditto ditto, 5 ditto | ... | ... | 12s. | 6d. |
| 26 | Ditto ditto, 7 ditto | ... | ... | 14s. | 0d. |
| 30 | Ditto ditto, 6 ditto | ... | ... | 15s. | 0d. |
| 30 | Ditto ditto, 8 ditto | ... | ... | 16s. | 6d. |
| 34 | Ditto ditto, 8 ditto | ... | ... | 18s. | 6d. |
| 34 | Ditto ditto, 10 ditto | ... | ... | 20s. | 0d. |

No. 6. Circular Pig Trough, with hopper and wrought-iron divisions.



PRICES.

| | | | | | |
|---------|----------------------------|-----|-----|------|-----|
| 2 feet | diameter, with 6 divisions | ... | ... | 12s. | 6d. |
| 2½ feet | diameter, with 8 divisions | ... | ... | 17s. | 6d. |

POULTRY TROUGH WITH FOUNTAIN.



For young Chickens the upright rods are arranged so as to prevent the fowls soiling their food, and in the first size are sufficiently close to prevent large fowls consuming the food intended for Chickens.

P R I C E .

| | | | | |
|---------------------------------------|-----|-----|------|-----|
| 12 inches diameter, rods 1 inch apart | ... | ... | 10s. | 6d. |
| 12 ditto 1½ ditto | ... | ... | 10s. | 0d. |
| 18 ditto 2½ ditto | ... | ... | 15s. | 0d. |



Oblong, one compartment, square ends.

| | | | | | | |
|-----------|-----|-----|-----|-----|-----|-----|
| 12 inches | ... | ... | ... | ... | 1s. | 8d. |
| 18 " | ... | ... | ... | ... | 2s. | 3d. |
| 24 " | ... | ... | ... | ... | 3s. | 0d. |
| 30 " | ... | ... | ... | ... | 4s. | 0d. |
| 36 " | ... | ... | ... | ... | 4s. | 6d. |



Oblong, 2 compartments, round ends.

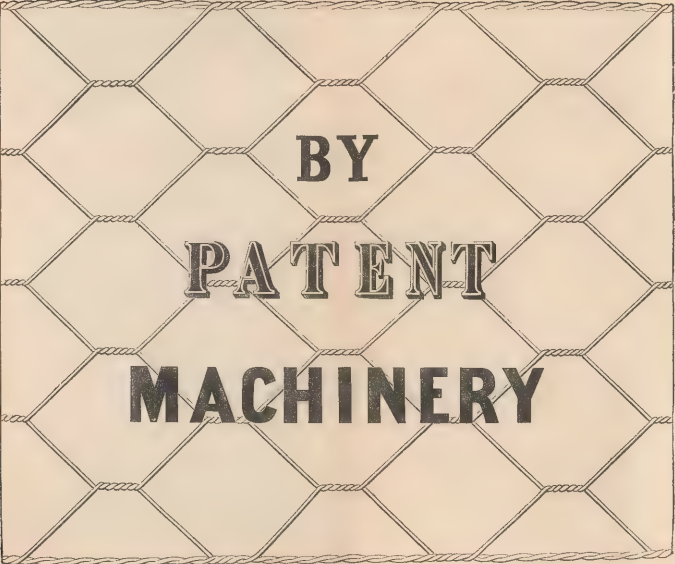
| | | | | | | |
|----------------|-----|-----|-----|-----|-----|-----|
| 12 inches long | ... | ... | ... | ... | 1s. | 9d. |
| 18 ditto | ... | ... | ... | ... | 2s. | 6d. |
| 24 ditto | ... | ... | ... | ... | 3s. | 0d. |



Oblong, 2 compartments, octagon ends.

| | | | | | | |
|-----------|-----|-----|-----|-----|-----|-----|
| 12 inches | ... | ... | ... | ... | 2s. | 0d. |
| 18 " | ... | ... | ... | ... | 2s. | 9d. |
| 24 " | ... | ... | ... | ... | 3s. | 3d. |

Engraved Pattern of Wire Net, with Double Selvage.



**BY
PATENT
MACHINERY**



THE
11 NET
10
Number
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970
980
990
1000

From the collections of Sydney Living Museums / Historic Houses Trust of NSW

Price, per Lineal Yard, of
WIRE NETTING, PLAIN AND GALVANIZED.
 INCH AND A-HALF MESH, DOUBLE SELVAGE.

| Number, | 20 | | 19 | | 18 | | 17 | | 16 | |
|-------------|--------------|-----|--------------|-----|--------------|-----|--------------|-----|--------------|-----|
| Size. | PLAIN, GALV. | | PLAIN, GALV. | | PLAIN, GALV. | | PLAIN, GALV. | | PLAIN, GALV. | |
| Ft. In. | D. | D. | D. | D. | D. | D. | D. | D. | D. | D. |
| 1-0 WIDE... | 2½ | 3½ | 3½ | 4½ | 4½ | 5½ | 5 | 6½ | 6 | 8 |
| 1-6 „ ... | 3½ | 4½ | 4½ | 5½ | 5 | 6 | 5½ | 7½ | 7 | 10 |
| 2-0 „ ... | 4 | 5½ | 5 | 6 | 5½ | 7 | 7 | 8½ | 9 | 1/ |
| 2-6 „ ... | 5½ | 7 | 6 | 7½ | 7 | 8½ | 8 | 10 | 11 | 1/2 |
| 3-0 „ ... | 6½ | 8 | 7 | 8½ | 8 | 10 | 10 | 10½ | 1,1 | 1/5 |
| 3-6 „ ... | 8 | 10 | 8½ | 10½ | 10 | 10½ | 10 | 1/4 | 1/4 | 1/3 |
| 4-0 „ ... | 9½ | 11½ | 10 | 1/0 | 11½ | 1/2 | 1,2½ | 1/6 | 1/6 | 2/0 |

The Two Inch Mesh Net is made of all widths, from 1 to 6 feet, at the following rates:—Price, per Lineal Yard, of

WIRE NETTING, PLAIN AND GALVANIZED.
 TWO INCH MESH, DOUBLE SELVAGE.

| Number, | 20 | | 19 | | 18 | | 17 | | 16 | |
|-------------|--------------|-----|--------------|-----|--------------|-----|--------------|-----|--------------|------|
| Size. | PLAIN, GALV. | | PLAIN, GALV. | | PLAIN, GALV. | | PLAIN, GALV. | | PLAIN, GALV. | |
| Ft. In. | D. | D. | D. | D. | D. | D. | D. | D. | D. | D. |
| 1-0 WIDE... | 2½ | 3 | 2½ | 3½ | 3 | 4 | 4 | 4½ | 4½ | 5½ |
| 1-6 „ .. | 3½ | 4 | 3½ | 4½ | 4½ | 5 | 5 | 6 | 6 | 7½ |
| 2-0 „ ... | 4 | 4½ | 4 | 5 | 4½ | 5½ | 5½ | 7 | 7 | 9 |
| 2-6 „ ... | 4½ | 5½ | 5 | 6 | 5½ | 7 | 7 | 8½ | 8½ | 11 |
| 3-0 „ ... | 5 | 6½ | 6½ | 8 | 6½ | 8½ | 8 | 11 | 11 | 1/1 |
| 3-6 „ ... | 6 | 7 | 7 | 8½ | 7½ | 10 | 9½ | 1/0 | 1/0 | 1/3 |
| 4-0 „ ... | 7 | 9 | 8½ | 10 | 9 | 11 | 10½ | 1,2 | 1/2 | 1/5 |
| 5-0 „ .. | 8½ | 11 | 9½ | 1/ | 11 | 1,2 | 1/1 | 1/5 | 1,5 | 1/9½ |
| 6-0 „ ... | 11 | 1,1 | 11½ | 1/2 | 1/1 | 1/5 | 1/3 | 1/8 | 1/8 | 2/2 |

When taken in 50 yard pieces, 5 per cent. discount is allowed for cash, or, in lieu thereof, Freight paid to any Port in the Kingdom, or first-class Railway Stations in England.

The Three Inch Mesh Net for Poultry Enclosures, and as a Fence for Sheep, Dogs, &c., is made of all widths, from 2 to 3½ feet, at the following rates:—Price, per Lineal Yard, of

STRONG AND FIRMLY TWISTED WIRE FENCING.

THREE INCH MESH.—DOUBLE SELVAGE.

| Number. | 18 | | 17 | | 16 | | 15 | | 14 | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Size. | PLAIN | GALV. | PLAIN | GALV. | PLAIN | GALV. | PLAIN | GALV. | PLAIN | GALV. |
| FT. IN. | D. | D. | D. | D. | D. | D. | D. | D. | D. | D. |
| 2-0 WIDE... | 3½ | 4½ | 4 | 5½ | 5 | 6½ | 6½ | 7½ | 8 | 10 |
| 2-6 „ ... | 4½ | 5½ | 5 | 7 | 6 | 7½ | 7½ | 9 | 9½ | 1/0 |
| 3-0 „ ... | 5 | 7 | 6½ | 8 | 7½ | 9 | 8½ | 10½ | 10½ | 1/2½ |
| 3-6 „ .. | 5½ | 8 | 7 | 8½ | 8 | 10 | 9½ | 11½ | 1/0 | 1/4 |

When taken in 50 yard pieces, 5 per cent. discount allowed for cash, or, in lieu thereof, Freight paid to any Port in the kingdom, or first-class Railway Stations in England.

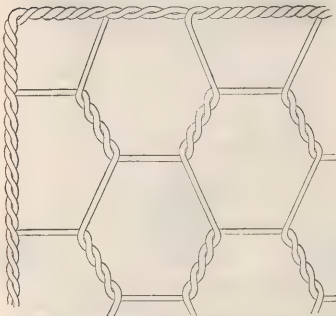
STRONG PREMIUM HARE AND RABBIT PROOF HAND-MADE WIRE NET.

This description of Net, of which a full-sized diagram is given on the next page, has long been known to Landed Proprietors, Agriculturists, &c., as the best and most efficient means for excluding Hares and Rabbits from Gardens, young Plantations and Nurseries, and but for its extra cost would be exclusively used for this purpose. It has been extensively used for the last fifteen years, and, where proper care has been taken of it, is still as serviceable as ever, so that Gentlemen who have used and proved its efficiency know that though at first cost more expensive, it is in the long run the Cheapest Net manufactured. It is made of all widths, from 6 inches to 9 feet, and has been manufactured of different degrees of strength—viz., Premium, Medium, and Light. The two last, however, are now superseded by the Machine-made Net, as described in the foregoing pages; and J. B., though he continues to make it of those various strengths when required, conceives that the Premium quality only is likely

to maintain its character and be preferred to the others as hitherto. He therefore limits his list of prices for this Net to the Best or Premium quality, made of No. 16 Wire, with strong double sel-vage, and coated with oil.

**FULL SIZED PATTERN OF PREMIUM HARE AND RABBIT
PROOF WIRE NETTING,**

DESCRIBED IN THE PRECEDING PAGES.

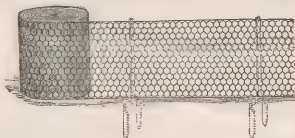


This quality is recommended as decidedly the best for all situations and circumstances where *permanency* and *durability* are essential; and a better idea of its great strength cannot be given than by stating that the weight of one yard of this net at 24 inch is equal to about 3 yards of another article in the market, the same width, at 6d. per yard.

PRICES.

| | | | |
|-------------------------|------------------|-----------------------|------------------|
| 12 in. high.....0s. 6d. | per lineal yard. | 48 in high.....2s 0d. | per lineal yard. |
| 18 ditto 0s. 9d. | " | 60 ditto .....2s 6d | " |
| 24 ditto .....1s. 0d. | " | 72 ditto .....3s 0d. | " |
| 30 ditto .....1s. 3d. | " | 84 ditto .....3s 6d. | " |
| 36 ditto .....1s. 6d. | " | 96 ditto .....4s 0d. | " |
| 42 ditto .....1s. 9d. | " | 108 ditto .....4s 6d. | " |

This Net is so strong that in many situations it is used by itself as a fence attached to Wood Posts, or Iron Stakes, thus:—



PRICE OF DOUBLE PRONG IRON SUPPORTS FOR WIRE NET.

| | | | | |
|------------------------|-----|-----|-----|----------|
| 18 inches above ground | ... | ... | ... | 0s. 7d. |
| 24 ditto ditto | ... | ... | ... | 0s. 8d. |
| 30 ditto ditto | ... | ... | ... | 0s. 10d. |
| 36 ditto ditto | ... | ... | ... | 1s. 0d. |

PLANT GUARDS.



Made of the above No. 1 Netting, painted, with strong wire rings at the top and bottom, and prongs for fixing them into the ground, and to open and hook at the side, in order to get them round Shrubs, Plants, and Trees, without injuring the foliage.

These Plant Guards have commanded a most extensive sale, from their exceeding cheapness and efficiency.

PRICES.

| | | | |
|---------------------------|---------------|---------------------------|--------------|
| 18 in. high by 9 in diam. | 1s. 0d. each. | 24 in. high by 9 in diam. | 1s. 2d. each |
| 18 ditto by 12 ditto | 1s. 4d. " | 24 ditto by 12 ditto | 1s. 5d. " |
| 18 ditto by 18 ditto | 2s. 0d. " | 24 ditto by 18 ditto | 2s. 3d. " |
| 18 ditto by 24 ditto | 2s. 8d. " | 24 ditto by 24 ditto | 3s. 0d. " |
| 27 ditto by 9 ditto | 1s. 4d. " | 30 ditto by 9 ditto | 1s. 6d. " |
| 27 ditto by 12 ditto | 1s. 9d. " | 30 ditto by 12 ditto | 2s. 0d. " |
| 27 ditto by 18 ditto | 2s. 8d. " | 30 ditto by 18 ditto | 3s. 0d. " |
| 27 ditto by 24 ditto | 3s. 6d. " | 30 ditto by 24 ditto | 4s. 0d. " |

MISCELLANEOUS DEPARTMENT.

STRONG WROUGHT IRON TENSION BRIDGES FOR FOOT PASSENGERS.

THERE is nothing that forms such an interesting feature in the landscape as a Bridge, and the more suitable the design to the situation, and the plan to the purpose, the more striking and pleasing is the effect produced.

For short spaces, the Tension Bridge has all the advantages of the Suspension, and is in some situations more suitable. It can be erected at less cost than the ordinary Wooden Bridges in use; and, for appearance and strength, is much superior. The prices vary: for foot-passengers, from 20s. to 25s. per foot in span, and for carriages, waggons, &c., from £3 to £6 per lineal foot in span, according to the width of pathway, and the weight the Bridge will be required to sustain.

For Railway Crossings the Tension Bridge is most suitable; it is the strongest of any, and by far the most economical.

STRONG WROUGHT IRON SUSPENSION BRIDGES.



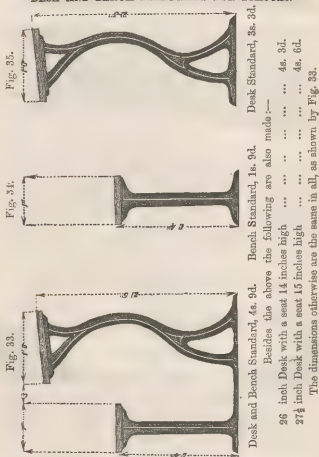
The elegant lightness of appearance and strength of Suspension Bridges have led greatly to their introduction in domains and places where ornament as well as durability and economy was an object.

PRICES.

For foot-passengers... .. 25s. to 35s. per lineal foot.

For the East and West Indies, &c., these Bridges are peculiarly adapted, especially those on the Tension Principle, on account of their convenience, economy, and the facility by which they can be erected on the spot, without the necessity of sending men from this country.

DESK AND BENCH STANDARDS FOR SCHOOLS.



Before submitting to the public the above cast iron appliances, every care has been taken to construct them in conformity with the latest and most approved instructions issued by the Committee of Council on Education. They are particularly recommended for Schools, Churches, Asylums, Reformatories, and Public Institutions generally.

IRON HOUSES,

Of Wrought and Cast-Iron, for Dwelling-Houses and Stores, made especially for the East and West Indies and other warm countries. Being portable, they can be taken down and removed at pleasure, and sent to any distance at little expense. They can then again be put up by any person of ordinary intelligence in a very short time. In their construction, every attention is paid to having them ventilated on the best principles; and the most classic as well as plain designs can be wrought out. Estimates sent to any part of the world, upon receiving specifications of the accommodation required.

BEST PREPARED WIRE FOR FENCING PURPOSES.

No. 4. No. 5. No. 6. No. 7. No. 8.



J. B. begs respectfully to direct the attention of Landed Proprietors and Farmers to the advantages of WIRE as an efficient and economical means of effecting the purposes of enclosure and exclusion—whether in conjunction with Iron Uprights as an ornamental Fence near Mansions, and through Pleasure Grounds, or with Wooded Posts for common pasture and field enclosures.

PRICE PER 100 YARDS, INCLUDING STAPLES FOR ATTACHING IT TO WOOD POSTS.

| | |
|---------------------------------------|--------------------------------------|
| No. 4. For Horses and Cattle, 8s. 6d. | No. 7. Sheep and Lambs 5s. 6d. |
| " 5. ditto ditto ... 7s. 6d. | " 8. ditto ditto 4s. 6d. |
| " 6. Cattle and Sheep, 6s. 6d. | |

Strong Screw Bolts and Nuts, with eye for fixing wire in order to strain up the Fence—

9 inches long..... 4s. 6d. per doz. 12 inches long 6s. per doz.

TOOLS FOR ERECTING WIRE FENCES.

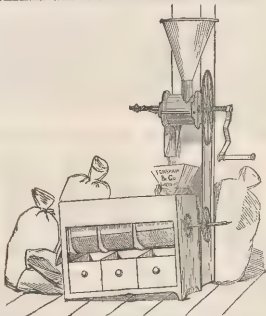
Superior Wire Fence Tools, for Gentlemen who erect their own Fences, viz. :—

| | | | |
|--|--|--------------------------------|--------|
| Improved Screw for straining the wires..... £1 1 0 | | Extra Tools:— | |
| Do. Steeled Collar Vice ... 0 7 6 | | File, with handle £0 1 6 | |
| 1'6. do. Clamps 0 7 6 | | Double Pegs Block... .. 0 1 6 | |
| Do. do. Turn Key 0 1 6 | | Eye Block 0 1 0 | |
| Do. do. Pliers..... 0 2 6 | | | £0 4 0 |

For the complete set, £2 0 0 Hammers, 1s. 6d. or 2s. 6d. each.

The above Tools are supplied in sets or separately.

COMBINED WHEAT MILL AND DRESSING MACHINE.



The above Machine is capable of Grinding 24lbs. of Wheat per hour, and dressing the Flour at the same operation, equal to the best French Burrs; it is a most valuable Machine to Farmers, for the Colonies, or for parties emigrating. Price £7 10s. Wheat Mills for fixing on posts, for exportation. Prices from £2 5s. upwards.

NEW REGISTERED ADJUSTABLE SACK-HOLDER & LIFTER.

Awarded a First-class Prize at the General Central Union Cattle Show at Stirling, 17th June, 1859.

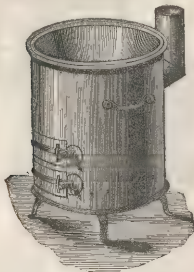
This useful Implement holds up a Sack with the mouth stretched wide open, in a perfectly firm and steady manner, thereby saving labour, time, and expense of a second person.

Sacks can be filled by it in a more expeditious, convenient, and cleanly manner than is practicable by other means; and the cost being trifling, it very soon reimburses the purchaser, and leaves him provided with a mechanical aid of the highest utility, without cost.

A Sack-holder and Barrow, on the above construction, with larger and broader wheels, well adapted for being used in a field where Potatoes are being lifted. Price £1 12s. 6d.

IMPROVED PORTABLE COPPERS.

WITH GALVANIZED IRON PAN.

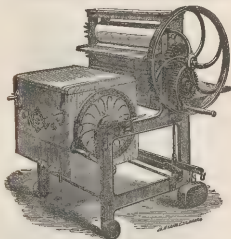


The Improved Portable Copper is held in high estimation, and very generally used for Washing, Brewing, Boiling Food for Cattle, and numerous other purposes. In its portability and strength, durability and lightness, compactness, simplicity of construction, and adaptability to all the purposes for which those fixed in brick-work are used are aptly combined. Also its advantages over those fixed in brick-work are important. It heats quicker, consumes less fuel, requires less attention, burns more freely, is more easily cleansed, costs less money, and, being portable, may be used in one spot one day, another the next, and when not in use laid by in cellar, out-house, or store-room.

PRICES.

| | |
|---------------|--------|
| 6 Gallon..... | £1 7 0 |
| 8 Do. | 1 10 0 |
| 10 Do. | 1 15 0 |
| 12 Do. | 1 17 6 |
| 14 Do. | 2 0 0 |
| 16 Do. | 2 5 0 |
| 18 Do. | 2 10 0 |
| 20 Do. | 3 0 0 |

BRADFORD'S PATENT WASHING MACHINE.

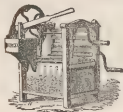


This invention, from the simplicity and ease of its mechanical action, its unencumbered open tub, its exceedingly convenient arrangement for wringing and mangling, combined with its wonderful efficiency, commends itself as the most complete article of the kind yet brought out.

PRICES.

| | |
|---|---------|
| No. 1.—For Washing only, tub same size as No. 2..... | £3 10 0 |
| No. 2.—This is the most useful size for family use, as it will wash a lace collar or double blanket | 8 8 0 |
| No. 3.—This machine is adapted for public institutions; references to which can be given | 15 15 0 |
| Improved Wringing and Mangling Machine..... | 4 4 0 |

NEW PATENT ECONOMIC WASHING, WRINGING, AND MANGLING MACHINE.



No. 1.—Small Size with Wringers and Rollers, £5 10s.

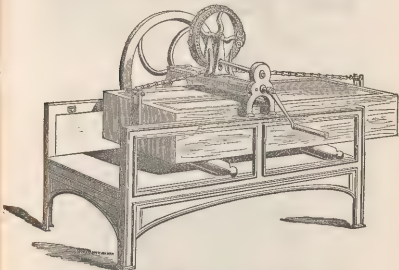
No. 2.—3 ft. square by 4 ft., £7 10s.

No. 3.—3½ ft. by 4 ft., £8 10s.

The New Patent Economic Washing, Wringing, and Mangling Machine is admitted to be the most simple and useful machine ever invented for washing any kind of fabric, from the most delicate muslin to the heaviest blanket or quilt, without rubbing or pressing, or the slightest risk of being torn or injured, with less soap, half the firing, and in one-third the usual time of the ordinary mode of w. sh. n. g. It simply requires a strong boy or girl to work it, and a supply of soft water; with ordinary labour it will wash 20 shirts in 20 minutes. The washing by this machine is done by a flush of water and not by rubbing.

BAKER'S PATENT MANGLE.

WITH A STRONG CAST IRON FRAME, AND HARDWOOD BOX,
WELL DOVETAILED TOGETHER.



The bottom of the Mangle is made of Mahogany, and the wheels which have always been a source of annoyance, are of wrought iron, so that they cannot break.

PRICES.

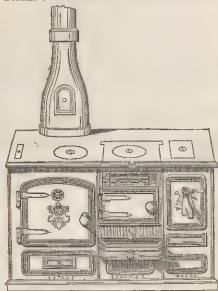
| | |
|------------------------------|---------|
| No. 1—5 ft. 6 in. long | £10 0 0 |
| " 2—6 0 " | 11 0 0 |
| " 3—6 6 " | 12 0 0 |
| " 4—7 0 " | 13 0 0 |

NEW ECONOMIC WRINGING MACHINE.



India-Rubber Spring Wringing Machine. J. B. has great satisfaction in recommending this machine to the attention of all families making economy a consideration, as a great saving of time and labour results from its use. Price £2 10s.

PATENT ECONOMIC KITCHEN RANGE.



Complete with Oven, Boiler, Hot Hearth, and Flue Pipe,
42 inches wide £4 10s.

HUNTER'S CELEBRATED PLUNGE CHURN.

Registered for the United Kingdom of Great Britain and Ireland.
FAMED FOR ITS SIMPLICITY, FACILITY, DURABILITY AND CHEAPNESS.



Has now for this some time past had a very fair trial, and been decided on by judges to be the **BEST CHURN** yet offered to the public. The advantages which the Plunge Churn possesses over every other, are well known to those interested in the making of Butter, (the only drawback being the labour of working) this however, is now overcome by the introduction of Hunter's Registered Plunge Churn. From its form and plainness, it is readily cleaned and kept sweet. Is entirely free from all metallic substances in the interior, thereby *producing a superior quality of Butter*; and is therefore not liable to get out of order. It has already surpassed all others where it is known, and must continue to do so wherever it is used.

PRICES.

| SIZE. | | | SIZE. | | |
|--------|------------------------|------|--------|------------------------|------|
| No. 1. | To Churn 2 Gallons ... | 32s. | No. 5. | To Churn 12 Gallons... | 55s. |
| 2. | Ditto 4 ditto ... | 40s. | 6. | Ditto 18 ditto ... | 60s. |
| 3. | Ditto 6 ditto ... | 45s. | 7. | Ditto 24 ditto ... | 70s. |
| 4. | Ditto 8 ditto ... | 50s. | | | |

Larger sizes in proportion. 1s. 6d. for Matting on each Churn, when sent to the Country.

Practical and useful hints regarding time consumed making Butter, quality, and quantity produced.

The time required to obtain Butter varies in a great degree; and what is of more importance, the percentage also varies; besides, it is not quite clear whether an extraordinary degree of speed be compatible with the finest quality, as the New York Agricultural Society was not satisfied with Butter so rapidly made by a Churn which was sent over to this Country some years ago.

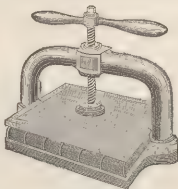
The Inventor, however, of the Registered Churn, (Hunter's) has no hesitation in boldly stating, that his Churn, from the extreme simplicity of all its working parts, will compete successfully with any of those which were exhibited and tried at the Great Exhibition of 1851; both as regards time, and also in the quality of the Butter, by attending to the following remarks, which he considers may be found beneficial by some.

To make Butter of the best quality, the Cream should be collected from 48 to 56 hours, and Churned within 3 to 5 days. If the Cream is allowed to remain too long on the Milk, or if the whole has become very sour previous to Churning, the Butter is inferior.

The taste and quality of the Butter are, of course, greatly dependent on the quality of the Milk, which requires to be kept entirely free from a tainted atmosphere; and after being made, it should be kept in a cool airy place, but perfectly dry. It is an erroneous practise to keep it in water. By doing so the flavour is injured and becomes tasteless.

The quantity of Butter yielded, is partly dependent on the temperature at which the Milk is kept previous to, and during the process of Churning. The best point of heat during Summer is 53 degrees. During cold weather it should be 2 to 3 degrees higher. During the process of Churning, it should be gradually raised 10 degrees. The heat of the water added should not much exceed blood heat, and the Milk should be agitated when the water is being poured in.

LETTER COPYING MACHINES.



These Machines are of an improved construction. They are indispensably necessary for every Office and Business-Room.

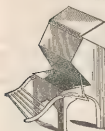
Usual size, 12 by 9 inches, 45s.

**IRON BEDSTEADS OF NEWEST DESIGNS, WITH PATENT
IRON SACKING.**

PRICES 12s. and upwards.

Illustrated Catalogues of these sent on application.

PHEASANT FEEDER, SINGLE AND DOUBLE PERCH.



The economy of these Feeders is very great, and no Preserve or Pheasantry should be without them. They are mounted with copper joints to prevent them ever getting stiff in the movement with rust, and are so balanced that no bird lighter than a Pheasant can raise the lid.

PRICE.

| | |
|---------------------|------|
| Single perch | 20s. |
| Double perch... .. | 21s. |

They are also well adapted for Poultry.

TREE SUPPORTS.



These are now much used for supporting Trees after transplanting, thus dispensing with the unsightly stakes and wind-ties used for this purpose. They are made of all heights from 4 to 10 feet, with collars 6 to 12 inches diameter. Each piece or leg being separate, they pack compactly and are easily put together.

PRICES.

| | |
|------------------------------|---------|
| 4 feet from ground line..... | 4s. 6d. |
| 5 " ditto | 5s. 6d. |
| 6 " ditto | 6s. 6d. |
| 7 " ditto | 7s. 6d. |

MCDUGALL'S PATENT DISINFECTING POWDER.

Attention is particularly requested to the several advantages resulting from the habitual use of "MCDUGALL'S DISINFECTING POWDER," in STABLES, COW-HOUSES, CATTLE-SHEDS, PIGGERIES, HEN-HOUSES, &c.

Its great efficacy in preventing offensive smells, and securing wholesome atmosphere, has been demonstrated in numberless instances:—In the transport ship, and in the farm, in the latrines of the camp, and in the cess-pools of the town; it has sweetened the air and stayed the plague; in stables and cow-houses certain diseases, which had previously been of frequent occurrence, have disappeared before its daily use. By universal testimony it is proved to be the cheapest and most effectual Disinfectant ever offered to the Public.

The action of all other Disinfectants is either to destroy or deteriorate the value for manure of all substances to which they may be applied. The progress however of chemical science, as applied to practical farming, has gradually indicated THIS DISINFECTANT as the desideratum of the times, placing as it does within the agriculturists own power, the means of more than doubling the value of the Natural Manures of his Farm, (for which purpose by its chemical composition it is specially designed), thereby saving a large yearly expenditure for Guano, &c., while at the same time it keeps the atmosphere of his stables and feeding sheds so pure as to lessen, if not entirely obviate, the chance of any endemic among his stock. Perfect as the theory of its composition is acknowledged to be, experiments were required to prove that its daily use would yield a profitable return to the farmer.

A very great number of smaller experiments has given the most satisfactory results, but the large trial made by Sir James Watts, with *One Thousand Tons* of disinfected horse dung, is so complete, both with respect to variety of crops and the area over which it was used, that reference is specially made to the following letter:—

ARNEY HALL, CHEADLE, August 5, 1857.

SIR,—The manure treated with your Disinfecting Powder, which Sir James purchased from Mr. Murray, has given entire satisfaction. One half the quantity of Disinfected Manure has produced equal, if not superior Crops to the manure from our own stock, which is highly kept. Our EARLIEST and HEAVIEST crop of grass was on a field to which the Disinfected Manure was applied; there is just now upon a very thin, poor field a first rate crop of oats, the excellency of which I attribute entirely to the field having been dressed with the Disinfected Manure; the results have been equally satisfactory upon all the crops in which it was applied.

It is to me quite obvious from the superior value of Manure treated with the Disinfecting Powder, that farmers suffer a great loss who do not avail themselves of the means which you have provided to preserve their manure. I may add that Sir James is so well satisfied with the results that he has ordered the Powder to be freely used about this place.

I am, Sir, yours very truly,
JOHN SMITH.

Mr. McDougall.

Copies of Mr. McDougall's Treatise on the *Preservation of the Natural Manures* may be had on application, along with numerous Testimonials of the advantages arising from the use of the Disinfecting Powder.

As wholesale Agent for the Patentee, the Subscriber is enabled to deliver it in Half-ton lots

AT £10 PER TON, BAGS INCLUDED.

Carriage Paid to any Railway Station, or Freight Free to any Port in Ireland in Ton Lots.

Single Bags of One Cwt. each 10s. 6d. at Liverpool.

**JAMES BANKS, 1, CASTLE BUILDINGS, DERBY SQUARE
LIVERPOOL.**

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